## DESCRIPTION

INDOLINONE COMBINATORIAL LIBRARIES AND RELATED PRODUCTS

AND METHODS FOR THE TREATMENT OF DISEASE

## RELATED APPLICATIONS

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This application relates to U.S. patent applications Serial No. 60/031,586, filed December 5, 1996, entitled "FLK Specific Indolinone Compounds and Related Products and Methods for the Treatment of Disease" by McMahon et al. (Lyon & Lyon Docket No. 223/146); Serial No. 60/045,566, filed May 5, 1997, entitled "FLK Specific Indolinone Compounds and Related Products and Methods for the Treatment of Disease" by McMahon et al. (Lyon & Lyon Docket No. 225/148); Serial No. 60/032,546, filed December 5, 1996, entitled "HYDROSOLUBLE INDOLINE TYROSINE KINASE INHIBITORS" by McMahon et al. (Lyon & Lyon Docket No. 223/062); Serial No. 60/045,715, filed December 5, 1996, entitled "SUBSTITUTED 3-[(TETRAHYDROINDOLE-2-YL)METHYLENE]-2-INDOLINONE AND 3-[(CYCLOPENTANO-b-PYRROL-2-YL) METHYLENE] -2-INDOLINONE COMPOUNDS" by McMahon et al. (Lyon & Lyon Docket No. 225/145); Serial No. 60/031,588, filed December 5, 1996, entitled "5-SUBSTITUTED INDOLINONE COMPOUNDS AS MODULATORS OF PROTEIN KINASE ACTIVITY" by McMahon et al. (Lyon & Lyon Docket No. 223/061); Serial No. 60/045,714, filed May 5, 1997, entitled "5-SUBSTITUTED INDOLINONE COMPOUNDS AS MODULATORS OF PROTEIN KINASE ACTIVITY" by McMahon et al.

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(Lyon & Lyon Docket No. 225/146); Serial No. 60/032,547, filed December 5, 1996, entitled "SUBSTITUTED 3-[(TETRAHYDROINDOLE-2-YL)METHYLENE]-2-INDOLINONE AND 3-[(CYCLOPENTANO-b-PYRROL-2-YL) METHYLENE]-2-INDOLINONE COMPOUNDS" by McMahon et al. (Lyon & Lyon Docket No. 223/060); Serial No. 60/046,843, filed May 5, 1997, entitled "HYDROSOLUBLE INDOLINE TYROSINE KINASE INHIBITORS" by McMahon et al. (Lyon & Lyon Docket No. 225/147); Serial No. 60/031,585, filed December 5, 1996, entitled "SUBSTITUTED 3-[(INDOLE-3-YL)METHYLENE]-2-INDOLINONE COMPOUNDS" by McMahon et al. (Lyon & Lyon Docket No. 223/059); Serial No. 60/031,565, filed May 5, 1997, entitled "SUBSTITUTED 3-[(INDOLE-3-YL)METHYLENE]-2-INDOLINONE COMPOUNDS" by McMahon et al. (Lyon & Lyon Docket No. 225/144) and this application also relates to U.S. patent application Serial No. 08/702,232, filed August 23, 1996, entitled "Indolinone Combinatorial Libraries and Related Products and Methods for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 221/187) which is a continuation-in-part application of U.S. patent applications Serial Nos. 08/655,225, filed June 5, 1996, entitled "3-(2'Halobenzylidenyl)-2-Indoline Compounds for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/299); 08/655,226, filed June 5, 1996, entitled "3-(4'-Dimethylaminobenzylidenyl)-2-Indolinone and Analogues Thereof for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/300);

08/655,223, filed June 5, 1996, entitled

"3-Heteroaryl-2-Indolinone Compounds for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/301); 08/655,224, filed June 5, 1996, entitled 
"3-(2'-Alkoxybenzylidenyl)-2-Indolinone and Analogues Thereof for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/302), and, 08/659,191, filed June 5, 1996, entitled "3-(4'Bromobenzylindenyl)-2-Indolinone and Analogues Thereof for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/303), all of which are continuations-in-part of U.S. patent application Serial No. 08/485,323, filed June 7, 1995, entitled "Benzylidene-Z-Indoline Compounds for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/298) all of which are incorporated herein by reference in their entirety, including any drawings.

## Introduction

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The present invention relates to novel compounds capable of modulating, regulating and/or inhibiting protein kinase signal transduction. The present invention is also directed to methods of regulating, modulating or inhibiting protein kinases, whether of the receptor or non-receptor class, for the prevention and/or treatment of disorders related to unregulated protein kinase signal transduction, including cell proliferative and metabolic disorders.

The following description of the background of the invention is provided to aid in understanding the invention, but is not admitted to be or describe prior art to the invention.

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Protein kinases and protein phosphatases regulate a wide variety of cellular processes including metabolism, cell proliferation, cell differentiation, and cell survival by participating in signal transduction pathways. Alterations in the cellular function of a protein kinase or protein phosphatase can give rise to various diseased states in an organism. For example, many types of cancer tumors are associated with increases in the activity of specific protein kinases. Cell and tissue degeneration can also be associated with decreases in the activity of particular protein kinases.

Cellular signal transduction is a fundamental mechanism whereby extracellular stimuli are relayed to the interior of cells. One of the key biochemical mechanisms of signal transduction involves the reversible phosphorylation of proteins. Phosphorylation of amino acids regulates the activity of mature proteins by altering their structure and function.

Phosphate most often resides on the hydroxyl moiety of serine, threonine, or tyrosine amino acids in proteins. Enzymes that mediate phosphorylation of cellular effectors fall into two classes. While protein phosphatases hydrolyze phosphate moieties from phosphoryl protein substrates, protein kinases transfer a phosphate moiety from adenosine triphosphate to protein substrates. The

converse functions of protein kinases and protein phosphatases balance and regulate the flow of signals in signal transduction processes.

Protein kinases are divided into two groups receptor and non-receptor type proteins. Receptor protein kinases comprise an extracellular region, a transmembrane region, and an intracellular region. Part of the intracellular region of receptor protein kinases harbors a catalytic domain. While non-receptor protein kinases do not harbor extracellular or transmembrane regions, they do comprise a region similar to the intracellular regions of their receptor counterparts.

Protein kinases are divided further into three classes based upon the amino acids they act upon. Some incorporate phosphate on serine or threonine only, some incorporate phosphate on tyrosine only, and some incorporate phosphate on serine, threonine, and tyrosine.

In an effort to discover novel treatments for diseases, biomedical researchers and chemists have designed, synthesized, and tested molecules that inhibit the function of protein kinases. Some small organic molecules form a class of compounds that modulate the function of protein kinases.

The compounds that can traverse cell membranes and are resistant to acid hydrolysis are potentially advantageous therapeutics as they can become highly bioavailable after being administered orally to patients. However, many of these protein kinase inhibitors only weakly inhibit the function of protein kinases. In

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addition, many inhibit a variety of protein kinases and will therefore cause multiple side-effects as therapeutics for diseases.

Some indolinone compounds, however, form classes of acid resistant and membrane permeable organic molecules that potently inhibit only specific protein kinases. Indolinone synthesis, methods of testing the biological activity of indolinones, and inhibition patterns of some indolinone derivatives are described in International Patent Publication No. W096/40116, published December 19, 1996 entitled "Benzylidene-Z-Indolinone Compounds for the Treatment of Disease" by Tang et al. (Lyon & Lyon Docket No. 223/298) and International Patent Publication No. W0 96/22976, published August 1, 1996 by Ballinari et al., both of which are incorporated herein by reference in their entirety, including any drawings.

Despite the significant progress that has been made in developing indolinone based pharmaceuticals, there remains a need in the art to identify the particular structures and substitution patterns that cause inhibition of particular protein kinases and other specified biological activities.

## Summary of The Invention

The present invention relates to organic molecules capable of modulating, regulating and/or inhibiting protein kinase signal transduction. Such compounds are useful for the treatment of diseases related to unregulated protein kinase signal transduction, including

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cell proliferative diseases such as cancer, atherosclerosis, arthritis and restenosis and metabolic diseases such as diabetes. The protein kinases effected include, but are not limited to Flk, FGFR, PDGFR, and raf.

The present invention features indolinone compounds that potently inhibit protein kinases and related products and methods. Inhibitors specific to the FLK protein kinase can be obtained by adding chemical substituents to the 3-[(indole-3-yl)methylene]-2-indolinone, in particular at the 1' position of the indole ring. Indolinone compounds that specifically inhibit the FLK and platelet derived growth factor protein kinases can harbor a tetrahydroindole or cyclopentano-b-pyrrol moiety. Indolinone compounds that are modified with substituents, particularly at the 5 position of the oxindole ring, can effectively activate protein kinases. This invention also features novel hydrosoluble indolinone compounds that are tyrosine kinase inhibitors and related products and methods.

The compounds of the invention represent a new generation of potential therapeutics for diseases caused by one or more non-functional protein kinases. Neuro-degenerative diseases fall into this class of diseases, including, but not limited to Parkinson's Disease and Alzheimers disease. The compounds can be modified such that they are specific to their target or targets and will subsequently cause few side effects and thus represent a new generation of potential cancer therapeutics. These properties are significant improvements over the currently

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utilized cancer therapeutics that cause multiple side effects and deleteriously weaken patients.

It is believed the compounds of the invention will minimize and obliterate solid tumors by specifically inhibiting the activity of the FLK protein kinase, or will at least modulate or inhibit tumor growth and/or metastases. The FLK protein kinase regulates proliferation of blood vessels during angiogenesis. Increased rates of angiogenesis accompany cancer tumor growth in cells as cancer tumors must be nourished by oxygenated blood during growth. Therefore, inhibition of the FLK protein kinase and the corresponding decreases in angiogenesis will starve tumors of nutrients and most likely obliterate them.

While a precise understanding of the mechanism by which compounds inhibit PTKs (e.g., the fibroblast growth factor receptor 1 [FGFR1]) is not required in order to practice the present invention, the compounds are believed to interact with the amino acids of the PTKs' catalytic region. PTKs typically possess a bi-lobate structure, and ATP appears to bind in the cleft between the two lobes in a region where the amino acids are conserved among PTKs; inhibitors of PTKs are believed to bind to the PTKs through non-covalent interactions such as hydrogen bonding, Van der Waals interactions, and ionic bonding, in the same general region that ATP binds to the PTKs. More specifically, it is thought that the oxindole component of the compounds of the present invention binds in the same general space occupied by the adenine ring of ATP.

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Specificity of an indolinone PTK inhibitor for a particular PTK may be conferred by interactions between the constituents around the oxindole core with amino acid domains specific to individual PTKs. Thus, different indolinone substitutents may contribute to preferential binding to particular PTKs. The ability to select those compounds active at different ATP (or other nucleotide) binding sites makes them useful in targeting any protein with such a site, not only protein tyrosine kinases, but also serine/threonine kinases and protein phosphatases. Thus, such compounds have utility for in vitro assays on such proteins and for in vivo therapeutic effect through such proteins. In one aspect the invention features a combinatorial library of indolinone compounds. library includes a series of at least ten (preferably at least 50-100, more preferably at least 100-500, and most preferably at least 500-5,000) indolinones that can be formed by reacting an oxindole compound with an aldehyde. In preferred embodiments the indolinones in the library can be formed by reacting a type A oxindole with a type B aldehyde. Type A oxindoles and type B aldehydes are shown in Figures 1 and 2 respectively (and Tables 11 and 12 respectively), as explained in detail below. As can be seen, in the figures the oxindoles are labeled 01, 02, 03, ... and the aldehydes are named A1, A2, A3, .... Thus, one can readily appreciate that the combinatorial library could include any and all combinations of oxindoles and aldehydes, including the indolinones resulting from 01 and A1, 01 and A2, 01 and A3, 02 and A1, 02 and A2, 02 and A3,

03 and A1, 03 and A2, 03 and A3 and so on. Similarly, the indolinones in the library can be formed by any combination of the oxindoles in Table 11 with any of the aldehydes listed in Figure 2 or Table 12. Finally, the indolinones may also, of course, come from any combination of aldehydes listed in Table 12 with any oxindoles from Figure 1 or Table 11.

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The term "combinatorial library" refers to a series of compounds. In the present case, the combinatorial library contains a series of indolinone compounds that can be formed by reacting an oxindole and an aldehyde. A wide variety of oxindoles and aldehydes may be used to create the library of indolinones.

The term .windolinone" is used as that term is commonly understood in the art and includes a large subclass of substituted or unsubstituted compounds that are capable of being synthesized from an aldehyde moiety and an oxindol moiety, such as the compounds shown below.

The term "type A oxindole" is meant to include any and all of the oxindoles set forth in Figure 1 and Table 11. Oxindoles, as that term is used herein, typically have the structure set forth below:

(I)

wherein,

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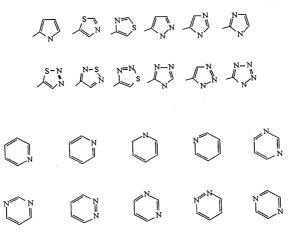
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- (a)  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$  are independently carbon or nitrogen;
  - (b) R<sub>1</sub> is hydrogen or alkyl;
  - (c) R2 is oxygen or sulfur;
  - (d) R3 is hydrogen;
- (e) R<sub>4</sub>, R<sub>9</sub>, R<sub>6</sub> and R<sub>7</sub>(i) are each independently selected from the group consisting of hydrogen, alkyl, alkoxy, aryl, aryloxy, alkaryl, alkaryloxy, halogen, trihalomethyl, S(O)R, SO<sub>2</sub>NRR', SO<sub>3</sub>R, SR, NO<sub>2</sub>, NRR', OH, CN, C(O)R, OC(O)R, NHC(O)R, (CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>R, and CONRR' or (ii) any two adjacent R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> taken together form a fused ring with the aryl portion of the oxindole-based portion of the indolinone.

It is to be understood that when  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$  is nitrogen or sulfur that the corresponding  $R_4$ ,  $R_5$ ,  $R_6$ , or  $R_7$  is nothing and that the corresponding bond shown in structure I does not exist.

Examples of oxindoles having such fused rings (as described in (e) (ii) above) are shown in Fig. 1, compounds 044, 045, 047, 048, 050, 051, 052, 053, 055, 056, 058, 059, 061, 062, 064, 066, 067, 069, 070, and 073. Other examples of suitable fused rings include the following:



The six membered rings shown above also exemplify possible A rings in the structures II, III and IV.

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The term "type B aldehyde" includes any and all of the aldehydes set forth in Figure 2 and Table 11. The term "aldehyde" is used as is commonly understood in the art to include substituted and unsubstituted aldehydes of the structure  $R_d \text{CHO}$  where  $R_d$  can be a wide variety of substituted or unsubstituted groups such as alkyl and aryl.

In yet another aspect, the invention provides a method of synthesizing an indolinone by reacting a type A

oxindole with a type B aldehyde. The method of making the indolinones of the present invention may involve creating a combinatorial library of compounds as described above, testing each compound in biological assays such as those described herein, selecting one or more suitable compounds and synthesizing the selected compound or compounds.

Also featured is an indolinone compound having formula II or III:

(III)

wherein:

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- (a)  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$  are independently carbon or nitrogen;
  - (b) R<sub>1</sub> is hydrogen or alkyl;
  - (c)  $R_2$  is oxygen or sulfur;
  - (d) R3 is hydrogen;
- (e) R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> (i) are each independently selected from the group consisting of hydrogen, alkyl, alkoxy, aryl, aryloxy, alkaryl, alkaryloxy, halogen, trihalomethyl, S(O)R, SO<sub>2</sub>NRR', SO<sub>3</sub>R, SR, NO<sub>2</sub>, NRR', OH, CN, C(O)R, OC(O)R, NHC(O)R, (CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>R, and CONRR' or (ii) any two adjacent R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> taken together form a fused ring with the aryl ring of the oxindole-based portion of the indolinone;
  - (f)  $R_2$ ',  $R_3$ ',  $R_4$ ',  $R_5$ ', and  $R_4$ ' are each independently selected from the group consisting of hydrogen, alkyl, alkoxy, aryl, aryloxy, alkaryl, alkaryloxy, halogen,

trihalomethyl, S(O)R,  $SO_2NRR'$ ,  $SO_3R$ , SR,  $NO_2$ , NRR', OH, CN, C(O)R, OC(O)R, NHC(O)R,  $(CH_2)_nCO_2R$ , and CONRR';

- (g) n is 0, 1, 2, or 3;
- -(h)-R is hydrogen, alkyl-or-aryl; --
- (i) R' is hydrogen, alkyl or aryl; and
- (j) A is a five membered heteroaryl ring selected from the group consisting of thiophene, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, oxazole, isoxazole, thiazole, isothiazole, 2-sulfonylfuran, 4-alkylfuran, 1,2,3-oxadiazole, 1,2,4-oxadiazole, 1,2,5-oxadiazole, 1,3,4-oxadiazole, 1,2,3,4-oxatriazole, 1,2,3,5-thiadiazole, 1,2,3-thiadiazole, 1,2,4-thiadiazole, 1,2,5-thiadiazole, 1,3,4-thiadiazole, 1,2,3,4-thiatriazole, 1,2,3,5-thiatriazole, and tetrazole, optionally substituted at one or more positions with alkyl, alkoxy, aryl, aryloxy, alkaryl, alkaryloxy, halogen, trihalomethyl, S(O)R, SO<sub>2</sub>NRR', SO<sub>3</sub>R, SR, NO<sub>2</sub>, NRR', OH, CN, C(O)R, OC(O)R, NHC(O)R, (CH<sub>2</sub>),CO<sub>2</sub>R or CONRR'.

As used herein, the term "compound" is intended to include pharmaceutically acceptable salts, esters, amides, prodrugs, isomers and metabolites of the base compound.

In preferred embodiments of structure III, the A substituent may be a five membered heterocycle of formula IV shown below:

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wherein D, E, F, and G are nitrogen, carbon, or sulfur atoms. The specific juxtaposition of groups D-G is limited to examples of heterocyclic groups known in the chemistry arts, such as the fused rings referred to above and all of which may be optionally substituted as described above in paragraph (j).

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In preferred embodiments, the aryl ring ("the A ring") of the oxindole-derived portion of the indolinone (i.e., the ring shown in structures II and III with  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$ ) has a polar substituent, preferably selected from the group consisting of NH<sub>2</sub>, COOH, SO<sub>3</sub>H, Br, Cl, I, F, COCH<sub>2</sub>CH<sub>2</sub>COOH, COCH<sub>2</sub>Cl, piperazine, and CH<sub>1</sub>CH<sub>1</sub>NH<sub>1</sub> at the 4, 5, 6, and 7 carbon atom positions (identified by substituents  $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  respectively in structures V and VI), most preferably hydrophillic groups such as NH<sub>2</sub>, COOH, SO<sub>3</sub>, COCH<sub>2</sub>CH<sub>2</sub>COOH, piperazine and CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>.

One approach to choosing target inhibitors of the FGFR (a protein kinase receptor linked to various disorders, such as Pfeiffer, Jackson-Weiss and Cruzon syndromes; dysplasias and hypochondroplasia; dwarfism; bone dysplasia; and developmental disorders involves selecting target compounds with a substituent on the A ring that mimics the triphosphate of ATP and thereby increases the affinity of target compounds for the active-site of the FGFR. Hydrophillic groups may act to mimic the triphosphate at ATP, and also to improve the solubility of the final inhibitor. Without being bound to any theory, it appears that the trans form of the

indolinones is generally a more favorable form for FGFR inhibitors.

Amine-based substituents at positions 4, 5, and 6 at the A ring of structures II and III are a preferred class of substituents and an especially preferred class are amines of the structure:

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wherein  $R_a$  is CO(CH<sub>2</sub>)<sub>2</sub>COOH, aryl, alkyl, or contains COOH, OH, or NH<sub>2</sub>. These types of groups provide steric hindrance in order to force the isomer into a trans conformation which may be a favored property of FGFR inhibition and acts as a linker to a hydrophillic group.

Another favored class of substituents on the aryl ring of structures II and III includes piperazine type substituents of the structure:

wherein  $R_b$  is preferably a negatively charged group, such as a negatively charged alkyl or acyl.

Yet another preferred class of substituents for the aryl ring of structures II and III are C-COR groups of the formula:

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wherein  $R_c$  is a hydrophilic or negatively charged group, preferably at the 5 and/or 6 positions of the A ring of structures II and III, such as amide, ester,  $CH_2CH_2COOH$ ,  $CH_2Cl$ , or piperazine.  $R_c$  could also be linked to the aryl ring by a sp3 carbon or could be attached as  $R_cO.S^{-}$ .

Yet another preferred set of substituents on the aryl ring are fused heterocyclic rings which can be synthesized by acylation of the arylamine followed by alkylation of the heterocyclic ring systems. Examples of several such compounds are set forth in Figure 1, compounds 044, 045, 047, 048, 050, 051, 052, 053, 055, 056, 058, 059, 061, 062, 064, 066, 067, 069, 070, and 073.

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In another aspect, the invention features a 3-[(indole-3-yl)methylene]-2-indolinone compound having a substituent at the 1' position of the indole ring. The substituent at the 1' position of the indole ring is selected from the group consisting of

- (a) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
- (b) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring

is optionally substituted with one or more halogen or trihalomethyl substituents;

(c) an aldehyde or ketone of formula -CO-R12, where R12 is selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;

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- (d) a carboxylic acid of formula  $-(R_{13})_n$ -COOH or ester of formula  $-(R_{14})_n$ -COO- $R_{15}$ , where  $R_{13}$ ,  $R_{14}$ , and  $R_{15}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
- (e) a sulfone of formula  $-(SO_2)-R_{16}$ , where  $R_{16}$  is selected from the group consisting of alkyl and a five or six membered heterocyclic ring, where the ring is optionally substituted with an alkyl moiety;
- $(f) (R_{17})_n (indole-1-yl) \quad \text{or} \quad (R_{18})_m CHOH (R_{19})_p (indole-1-yl), \quad \text{where the indol moiety is optionally substituted where } R_{17}, \; R_{18}, \; \text{and } R_{19} \; \text{are alkyl, and where } m, \\ n, \; \text{and } p \; \text{are independently 0 or 1; and }$
- (g) taken together with a 2' substituent of the indole ring forms a five or six membered heterocyclic ring.

The term "alkyl" refers to a straight-chain, branched, or cyclic saturated aliphatic hydrocarbon. The alkyl group is preferably 1 to 10 carbons, more preferably a lower alkyl of from 1 to 7 carbons, and most preferably 1 to 4 carbons. Typical alkyl groups include methyl, ethyl, propyl, isopropyl, butyl, isobutyl, tertiary butyl, pentyl, hexyl and the like. The alkyl group may be substituted and some typical alkyl substituents include

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hydroxyl, cyano, alkoxy, oxygen, sulfur, nitroxy, halogen,  $-N(CH_3)_2$ , amino, and -SH.

The term "methyl" refers to a saturated alkyl moiety of one carbon. The term "ethyl" refers to a saturated alkyl moiety of two carbons. The term "propyl" refers to a saturated alkyl moiety of three carbons. The term "butyl" refers to a saturated alkyl moiety of four carbons. The term "pentyl" refers to a saturated alkyl moiety of five carbons.

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The term "aryl" refers to an aromatic group which has at least one ring having a conjugated pi electron system and includes both carbocyclic aryl (e.g. phenyl) and heterocyclic aryl groups (e.g. pyridine). Aryl moieties include monocyclic, bicyclic, and tricyclic rings, where each ring has preferably five or six members. The aryl moiety may be substituted and typical aryl substituents include halogen, trihalomethyl, hydroxyl, -SH, -OH, -NO<sub>2</sub>, amine, thioether, cyano, alkoxy, alkyl, and amino.

The terms "heterocycle" or "heterocyclic" refer to compounds that form a ring and contain up to four hetero atoms, the remainder of the atoms forming the ring being carbon. Thus, for example, each ring in the structure can contain zero, one, two, three, or four nitrogen, oxygen, or sulfur atoms within the ring. The ring can preferably be saturated with hydrogen atoms, more preferably harbor one or more unsaturations, and most preferably contain an aryl conjugated pi electron system. The rings are preferably eleven, twelve, thirteen, or fourteen membered rings, more preferably eight, nine, or ten membered

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rings, and most preferably five or six membered rings. Examples of such rings are furyl, thienyl, pyrrol, imidazolyl, indolyl, pyridinyl, thiadiazolyl, thiazolyl, piperazinyl, dibenzfuranyl, dibenzthienyl. The heterocyclic rings of the invention may be optionally substituted with one or more functional groups which are attached commonly to such rings, such as, e.g., hydroxyl, bromo, fluoro, chloro, iodo, mercapto or thio, cyano, cyanoamido, alkylthio, heterocycle, aryl, heteroaryl, carboxyl, oxo, alkoxycarbonyl, alkyl, alkenyl, nitro, amino, alkoxyl, amido, and the like. Structures of some preferred heterocyclic rings are the fused rings that have been shown above.

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The term "aldehyde" refers to a chemical moiety with formula  $-(R)_n$ -CHO, where R is selected from the group consisting of alkyl or aryl and n is 0 or 1.

The term "ketone" refers to a chemical moiety with formula  $-(R)_n$ -CO-R', where R and R' are selected from the group consisting of alkyl or aryl and n is 0 or 1.

The term "carboxylic acid" refers to a chemical moiety with formula  $-(R)_n$ -COOH, where R is selected from the group consisting of alkyl or aryl and n is 0 or 1.

The term "ester" refers to a chemical moiety with formula  $-(R)_n$ -COOR', where R and R' are independently selected from the group consisting of alkyl or aryl and n is 0 or 1.

The term "sulfone" refers to a chemical moiety with formula  $-SO_2-R$ , where R is selected from the group consisting of alkyl or aryl.

The term "pharmaceutically acceptable salt" refers to a formulation of a compound that does not cause significant irritation to an organism and does not abrogate the biological activity and properties of the compound. Pharmaceutical salts can be obtained by reacting a compound of the invention with inorganic acids such as hydrochloric acid, hydrobromic acid, sulfuric acid, nitric acid, phosphoric acid, methanesulfonic acid, ethanesulfonic acid, p-toluenesulfonic acid, salicylic acid and the like.

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The term "prodrug" refers to an agent that is converted into the parent drug in vivo. Prodrugs may be easier to administer than the parent drug in some situations. For example, the prodrug may be bioavailable by oral administration but the parent is not, or the prodrug may improve solubility to allow for intravenous administration.

A preferred embodiment of the invention relates to compound of the following formula,

$$R_{4}$$
 $R_{4}$ 
 $R_{5}$ 
 $R_{10}$ 
 $R_{10}$ 

(V)

where (a)  $R_i$  as is described above for the substituent at the 1' position of the indole ring;

- (b)  $R_2,\ R_3,\ R_4,\ R_5,$  and  $R_6$  are independently selected from the group consisting of,
  - (i) hydrogen;

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(ii) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;

- (iii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- (iv) a ketone of formula -CO- $R_{20}$ , where  $R_{20}$  is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring
- (v) a carboxylic acid of formula -(R21)n-COOH or ester of formula -(R<sub>22</sub>)-COO-R<sub>23</sub>, where R<sub>21</sub>, R<sub>22</sub>, and R<sub>23</sub> and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (vi) halogen;

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- (vii) an alcohol of formula (R24)m-OH or an ether of formula  $-(R_{24})_n$ -O- $R_{25}$ , where  $R_{24}$  and  $R_{25}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (viii)  $-NR_{26}R_{27}$ , where  $R_{26}$  and  $R_{27}$  are independently selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;
  - (ix) -NHCOR<sub>28</sub>, where R<sub>28</sub> is selected from the group consisting of hydroxyl, alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester;
    - $(x) \qquad -SO_2NR_{29}R_{30}, \quad \text{where} \quad R_{29} \quad \text{and} \quad R_{30} \quad \text{are}$  selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;

- (xi) any two of  $R_3$ ,  $R_4$ ,  $R_9$ , or  $R_6$  taken together form a bicyclic or tricyclic moiety fused to the six membered ring of the indole, where each ring in the multicyclic moiety is a five or six membered heterocyclic ring;
- (c)  $R_{7},\ R_{8},\ R_{9},\ and\ R_{10}$  are independently selected from the group consisting of,
  - (i) hydrogen;

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- (ii) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, aldehyde, or trihalomethyl substituents;
  - (iii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
  - (iv) an aldehyde or ketone of formula -CO-R<sub>31</sub>, where R<sub>31</sub> is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;
  - (v) a carboxylic acid of formula -(R32)n-COOH or ester of formula -(R33) $_m$ -COO-R34, where R32, R33, and R34 and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and n and m are independently 0 or 1;
    - (vi) halogen;
  - $(vii) \qquad \text{an alcohol of formula } (R_{35})_n \text{OH or an}$  ether of formula  $-(R_{35})_n \text{O-}R_{36}$ , where  $R_{35}$  and  $R_{36}$  are

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independently chosen from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;

(viii)  $-NR_{37}R_{38}$ , where R  $_{3}$ and R  $_{4}$ R independently selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;

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(ix) -NHCOR<sub>39</sub>, where R<sub>39</sub> is selected from the group consisting of hydroxyl, alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester;

 $(x) \qquad -SO2NR_{40}R_{41}, \text{ where } R_{40} \text{ and } R_{41} \text{ are}$  selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;

(xi) any two of  $R_7$ ,  $R_8$ ,  $R_9$ , or  $R_{10}$  taken together form a bicyclic or tricyclic heterocyclic moiety fused to the six membered ring of the indole, where each ring in the multicyclic moiety is a five or six membered heterocyclic ring; and

'(d)  $R_{11}$  is hydrogen or alkyl; provided that at least one of  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ , or  $R_{10}$  is alkyl or provided that at least four of  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ , or  $R_{10}$  are not hydrogen.

In preferred embodiments of the invention as shown in structure V above,  $R_i$  is preferably a lower alkyl, branched or unbranched, more preferably an unbranched lower alkyl (e.g., ethyl, propyl, isopropyl, butyl, tertiary butyl, pentyl), and most preferably a methyl moiety.

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In other preferred embodiments one or more of  $R_1$ ,  $R_2$ ,  $R_3,\ R_4,\ R_5,\ R_6,\ R_7,\ R_8,\ R_9,\ and\ R_{10}$  of structure V are a heterocyclic ring. The heterocycle is preferably selected from the group consisting of five, six, eight, nine, ten, eleven, twelve, thirteen, and fourteen membered aryl or non-aryl rings. The heterocycles can be furyl, thienyl, pyrrol, imidazolyl, indolyl, pyridinyl, thiadiazolyl, thiazolyl, piperazinyl, dibenzfuranyl, dibenzthienyl, 2-aminothiazol-4-yl, 2-amino-5-chlorothiazol-4-yl, 2amino-thiadiazol-4-yl, 2,3-dioxopiperazinyl, 4-alkylpiperazinyl, 2-iodo-3-dibenzfuranyl, 3-hydroxy-4-dibenzthienyl.  $R_2$  preferably is lower alkyl, more preferably methyl, or phenyl or biphenyl preferably mono-substituted with halogen.  $R_3$ ,  $R_4$ ,  $R_5$  and mono-R  $_6$ preferably are selected from the group consisting of hydrogen, unsubstituated lower alkyls, halogen, methoxy, carboncyclic and ether. R11 is preferably hydrogen.

In especially preferred embodiments of structure V,  $R_1$  is methyl and  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are hydrogen, or  $R_1$  and  $R_7$  are methyl and  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are hydrogen. Other especially preferred compounds are set forth in the tables and examples set forth herein.

In another aspect, the invention features a method of synthesizing an indolinone compound, where the method comprises the steps of:

(a) reacting an aldehyde of formula VI with an oxindol of formula VII,

VI

VII

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where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are described herein; and

(b) separating the indolinone compound from the aldehyde and oxindol reactants.

The term "synthesizing" defines a method of combining multiple compounds together and/or chemically modifying the compound(s) in a controlled environment. A controlled environment preferably includes a glass vessel, a stirring rod or bar, a heating or cooling source, and specific organic solvents.

The term "reacting" refers to mixing two compounds together in a controlled environment. The compounds that

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are mixed together and reacted with one another are termed "reactants".

The term "separating" describes methods of segregating compounds from one or more other compounds. Compounds can be separated from one another by using techniques known in the art which include, but are not limited to, column chromatography techniques and solvent phase separation techniques.

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In another aspect, the invention features optionally substituted 3-[(tetrahydroindole-2-yl)methylene]-2-indolinone and 3-[(cyclopentano-b-pyrrol-2-yl)methylene]-2-indolinone compounds.

The term "optionally substituted" refers, for example, to a benzene ring that either harbors a hydrogen at a particular position or optionally harbors another substituent at that position. The term "optionally substituted" refers to other molecules in addition to benzene. A ring structure, for example can be N-substituted or C-substituted.

The term "N-substituted" refers to a compound that harbors chemical substituents attached to a nitrogen atom in a ring of the indolinone.

The term "C-substituted" refers to a compound that harbors chemical substituents attached to a carbon atom in the indolinone.

The term "independently selected" refers to a molecule that harbors one substituent chosen from a group of substituents.

A preferred embodiment of the invention relates to an indolinone compound of the following formula,

VIII

IX

- 5 where (a)  $R_1$  is selected from the group consisting of,
  - (i) hydrogen;

(ii) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;

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- (iii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- $\mbox{(iv)} \qquad \mbox{ketone of formula -CO-$R$_{11}$, where $R$_{11}$ is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;}$
- (v) a carboxylic acid of formula  $-(R_{12})_n$ COOH or ester of formula  $-(R_{13})_n$ -COO- $R_{14}$ , where  $R_{12}$ ,  $R_{13}$ , and  $R_{14}$  and are independently selected from the group
  consisting of alkyl or a five or six membered heterocyclic
  ring and n and m are independently 0 or 1;
- (vi) a sulfone of formula  $-(SO2)-R_{15}$ , where  $R_{15}$  is selected from the group consisting of alkyl or a five or six membered heterocyclic ring, where the ring is optionally substituted with an alkyl moiety;
- $(\text{vii}) \qquad -\left(R_{16}\right)_n \left(\text{indole-1-yl}\right) \quad \text{or} \quad -\left(R_{17}\right)_n \text{CHOH-} \\ \left(R_{18}\right) p \left(\text{indole-1-yl}\right), \text{ where the indole moiety is optionally} \\ \text{substituted with an aldehyde and } R_{16}, \ R_{17}, \ \text{and } R_{18} \ \text{are alkyl} \\ \text{and } n, \ m, \ \text{and } p \ \text{are independently 0 or 1;}$
- (viii) taken together with a 2' substituent of the indole ring form a tricyclic moiety, where each ring in the tricyclic moiety is a five or six membered heterocyclic ring;

- (b)  $R_2$ ,  $R_3$ ,  $R_3$ ,  $R_4$ ,  $R_4$ ,  $R_9$ ,  $R_9$ ,  $R_{16}$  and  $R_{-6}$  are independently selected from the group consisting of,
  - (i) hydrogen;

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- (ii) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, aldehyde, or trihalomethyl substituents;
- (iii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- (iv) ketone of formula -CO- $R_{20}$ , where  $R_{20}$  is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;
- (v) a carboxylic acid of formula  $-(R_{21})_n$ -COOH or ester of formula  $-(R_{22})_n$ -COO- $R_{23}$ , where  $R_{21}$ ,  $R_{22}$ , and  $R_{23}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (vi) halogen;
- (vii) an alcohol of formula  $(R_{24})_m$ -OH or an ether of formula  $-(R_{24})_m$ -O-R<sub>25</sub>, where  $R_{24}$  and  $R_{25}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
- $(\mbox{viii}) \mbox{NR}_{26} \mbox{R}_{\mbox{$\it e$}7} \mbox{ where } \mbox{R}_{\mbox{$\it 26$}} \mbox{ and } \mbox{R}_{\mbox{$\it 27$}} \mbox{ are independently selected from the group consisting of}$

hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;

- (ix) -NHCOR $_{28}$ , where  $R_{28}$  is selected from the group consisting of hydroxyl, alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester;
- (x) -SO2NR<sub>23</sub>R<sub>30</sub>, where R<sub>29</sub> and R<sub>30</sub> are selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;
- (xi) any two of R<sub>3</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>5</sub>, R<sub>6</sub>, or R<sub>6</sub>, taken together form a bicyclic or tricyclic hetercyclic moiety fused to the six membered ring of the indole, where each ring in the multicyclic moiety is a five or six membered heterocyclic ring;
  - (c)  $R_{7},\ R_{8},\ R_{9},\ \mbox{and}\ R_{10}\,\mbox{are independently selected}$  from the group consisting of,
    - (i) hydrogen;

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- (ii) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
- (iii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- (iv) ketone of formula -CO- $R_{31}$ , where  $R_{31}$  is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;

- (v) a carboxylic acid of formula  $-(R_{12})_n$ -COOH or ester of formula  $-(R_{33})_m$ -COO- $R_{34}$ , where  $R_{32}$ ,  $R_{33}$ , and  $R_{34}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and n and m are independently 0 or 1;
  - (vi) halogen;

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- (vii) an alcohol of formula  $(R_{35})_m$ -OH or an ether of formula  $-(R_{35})_n$ -O-R<sub>36</sub>, where R<sub>35</sub> and R<sub>36</sub> are independently chosen from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
- $(viii) \quad \ -NR_{37}R_{38}, \quad where \quad R_{37} \quad and \quad R_{38} \quad are \\ independently \quad selected \quad from \quad the \quad group \quad consisting \quad of \\ hydrogen, \quad oxygen, \quad alkyl, \quad and \quad a \quad five \quad or \quad six \quad membered \\ heterocyclic \quad ring;$
- (ix) -NHCOR39, where R39 is selected from the group consisting of hydroxyl, alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester;
- $(x) \qquad -\text{SO2NR}_{40}R_{41}, \quad \text{where} \quad R_{40} \quad \text{and} \quad R_{41} \text{ are}$  selected from the group consisting of hydrogen, oxygen, alkyl, and a five or six membered heterocyclic ring;
  - (xi) any two of  $R_7$ ,  $R_8$ ,  $R_9$ , or  $R_{10}$  taken together form a bicyclic or tricyclic hetercyclic moiety fused to the six membered ring of the indole, where each ring in the multicyclic moiety is a five or six membered heterocyclic ring; and
    - (d)  $R_{11}$  is hydrogen or alkyl.

Another preferred embodiment of the invention relates to indolinone compounds of structures VIII and IX, where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_3$ ,  $R_4$ ,  $R_4$ ,  $R_5$ ,  $R_5$ ,  $R_6$ ,  $R_6$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are hydrogen.

In another preferred embodiment, the invention relates to oxidolinone compounds of structures VIII and IX, where  $R_8$  is bromine, chlorine, or NH2 and  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_4$ ,  $R_5$ ,  $R_5$ ,  $R_6$ ,  $R_6$ ,  $R_6$ ,  $R_7$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are hydrogen.

In yet another preferred embodiment, the invention relates to indolinone compounds of structures VIII and IX, where  $R_7$  is methyl and  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_3$ ,  $R_4$ ,  $R_4$ ,  $R_5$ ,  $R_5$ ,  $R_6$ ,  $R_6$ ,  $R_6$ ,  $R_7$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are hydrogen.

In another aspect, the invention features a method of synthesizing an indolinone compound, where the method comprises the steps of:

(a) reacting an aldehyde of formula X or XI with an oxindol of formula XII,

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ΧI

XII

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where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_1$ ,  $R_4$ ,  $R_4$ ,  $R_5$ ,  $R_5$ ,  $R_6$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are described herein; and

(b) separating the indolinone compound from the aldehyde and oxindole reactants.

In another aspect, the invention features an indolinone compound having a substituent at the 5 position of the oxindole ring, where the substituent at the 5 position of the oxindole ring is selected from the group consisting of:

- (a) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
- (b) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring

is optionally substituted with one or more halogen or trihalomethyl substituents;

- (c) a ketone of formula -CO- $R_{10}$ , where  $R_{10}$  is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;
- (d) a carboxylic acid of formula  $-(R_{11})$  n-COOH or ester of formula  $-(R_{12})$ -COO- $R_{13}$ , where  $R_{11}$ ,  $R_{12}$ , and  $R_{13}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (e) halogen;

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- (f) an alcohol of formula  $(R_{14})_m$ -OH or an ether of formula  $-(R_{14})_m$ -O-R<sub>15</sub>, where  $R_{14}$  and  $R_{15}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
- $\mbox{(g)} \quad \mbox{-NR}_{16}R_{17}, \mbox{ where } R_{16} \mbox{ and } R_{17} \mbox{ are independently} \\ \mbox{selected from the group consisting of hydrogen, alkyl, and} \\ \mbox{a five or six membered heterocyclic ring;} \\ \mbox{}$
- (h) -NHCOR<sub>18</sub>, where  $R_{18}$  is selected from the group consisting of alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester;
- (i)  $-SO_2NR_{19}R_{20}$ , where  $R_{19}$  and  $R_{20}$  are selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;
- $\mbox{(j)} \ \mbox{any two of $R_4$, $R_5$, $R_6$, or $R_7$ taken together} \\ \mbox{form a bicyclic or tricyclic hetercyclic moiety fused to} \\ \mbox{the six membered ring of the indole, where each ring in} \\$

the multicyclic moiety is a five or six membered heterocyclic ring.

A preferred embodiment of the invention relates to a compound of the following formula,

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### (XIII)

where (a)  $\ensuremath{R_{\text{5}}}$  is selected from the group consisting of,

- (i) alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
- (ii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- $\label{eq:constraint} \mbox{(iii)} \qquad \mbox{a ketone of formula -CO-$R$_{10}$, where $R$_{10}$ is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;$
- $(iv) \qquad \text{a carboxylic acid of formula } -(R_{11})\, n -$  COOH or ester of formula  $-(R_{12})$  -COO+R\_{13}, where  $R_{11},\ R_{12},\ and$

 $R_{13}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;

(v) halogen;

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- (vi) an alcohol of formula  $(R_{14})_m$ -OH or an ether of formula  $-(R_{14})_m$ -O-R<sub>15</sub>, where  $R_{14}$  and  $R_{15}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (vii) -NR<sub>16</sub>R<sub>17</sub>, where R<sub>16</sub> and R<sub>17</sub> are independently selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;
  - $(viii) \qquad \text{-NHCOR}_{18}, \text{ where } R_{18} \text{ is selected from the} \\ \text{group consisting of alkyl, and a five or six membered} \\ \text{heterocyclic ring, where the ring is optionally} \\ \text{substituted with alkyl, halogen, carboxylate, or ester;} \\$
  - $(ix) \quad -SO_2NR_{19}R_{20}, \quad \text{where} \quad R_{19} \quad \text{and} \quad R_{20} \quad \text{are}$  selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;
  - (x) any two of  $R_4$ ,  $R_5$ ,  $R_6$ , or  $R_7$  taken together form a bicyclic or tricyclic hetercyclic moiety fused to the six membered ring of the oxindole, where each ring in the multicyclic moiety is a five or six membered heterocyclic ring;
  - (b)  $R_1$  is selected from the group consisting of a five, six, eight, nine, and ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally

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substituted with one or more substituents selected from the group consisting of

- (i) hydrogen and alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
- (ii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
- (iii) a ketone of formula -CO- $R_{21}$ , where  $R_{21}$  is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;
- (iv) a carboxylic acid of formula  $-(R_{22})_n$ -COOH or ester of formula  $-(R_{23})$ -COO+ $R_{24}$ , where  $R_{22}$ ,  $R_{23}$ , and  $R_{24}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
  - (v) halogen;

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- (vi) an alcohol of formula ( $R_{25}$ )m-OH or an ether of formula  $-(R_{25})_n$ -O- $R_{26}$ , where  $R_{25}$  and  $R_{26}$  are independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;
- (vii)  $-NR_{27}R_{28}$ , where R  $_{27}$  and R  $_{28}$ re independently selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;

- (viii) -NHCOR<sub>29</sub>, where  $R_{29}$  is selected from the group consisting of alkyl, and a five or six membered heterocyclic ring, where the ring is optionally substituted with alkyl, halogen, carboxylate, or ester,
- (ix)  $-SO_2NR_{30}R_{31}$ , where  $R_{30}$  and  $R_{31}$  are selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring;

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- (c)  $R_4$ ,  $R_6$ , and  $R_7$  are independently selected from the group consisting of,
- (i) hydrogen and alkyl that is optionally substituted with a monocyclic or bicyclic five, six, eight, nine, or ten membered heterocyclic ring, where the ring is optionally substituted with one or more halogen, or trihalomethyl substituents;
  - (ii) five, six, eight, nine, or ten membered monocyclic or bicyclic heterocyclic ring, where the ring is optionally substituted with one or more halogen or trihalomethyl substituents;
  - (iii) a ketone of formula -CO-R<sub>32</sub>, where R<sub>32</sub> is selected from the group consisting of hydrogen, alkyl, or a five or six membered heterocyclic ring;
    - (iv) a carboxylic acid of formula  $-(R_{33})$  n-COOH or ester of formula  $-(R_{34})$ -COO- $R_{35}$ , where  $R_{33}$ ,  $R_{34}$ , and  $R_{35}$  and are independently selected from the group consisting of alkyl or a five or six membered heterocyclic ring and m and n are independently 0 or 1;
      - (v) halogen;
    - (vi) an alcohol of formula  $(R_{36})m-OH$  or an ether of formula  $-(R_{36})_n-O-R_{37}$ , where  $R_{36}$  and  $R_{37}$  are

independently selected from the group consisting of alkyl and a five or six membered heterocyclic ring and m and n are independently 0 or 1;

 $(viii) \qquad \text{-NHCOR}_{40}, \text{ where } R_{40} \text{ is selected from the} \\ \text{group consisting of alkyl, and a five or six membered} \\ \text{heterocyclic ring, where the ring is optionally} \\ \text{substituted with alkyl, halogen, carboxylate, or ester;} \\$ 

 $(ix) \qquad -SO_2NR_{41}R_{42}, \quad \text{where} \quad R_{41} \quad \text{and} \quad R_{42} \quad \text{are}$  selected from the group consisting of hydrogen, alkyl, and a five or six membered heterocyclic ring, and

(d) R, is hydrogen or alkyl.

In preferred embodiments of the invention shown in structure XIII above one or more of  $R_1$ ,  $R_4$ ,  $R_5$ ,  $R_6$ , or  $R_7$  are a heterocyclic ring. Preferred heterocycles of the invention are described herein.

Another preferred embodiment of the invention shown in structure XIII above is an indolinone compound, where  $R_1$  is (3,5-dimethylpyrrol)-2-yl,  $R_5$  is -COOH, and  $R_2$ ,  $R_4$ ,  $R_6$ , and  $R_7$  are hydrogen.

Another preferred embodiment of the invention shown in structure XIII above is an indolinone compound, where  $R_1$  is (3,5-diethylpyrrol)-2-yl,  $R_5$  is -COOH, and  $R_2$ ,  $R_4$ ,  $R_6$ , and  $R_7$  are hydrogen.

Another preferred embodiment of the invention shown in structure XIII above is an indolinone compound, where

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 $R_1$  is (3,5-diisopropylpyrrol)-2-yl,  $R_5$  is -COOH, and  $R_2$  ,  $R_6$  ,  $R_6$  , and  $R_7$  are hydrogen.

Another preferred embodiment of the invention shown in structure XIII above is an indolinene compound, where  $R_1$  is (3,5-dimethylpyrrol)-2-yl,  $R_5$  is -(CH<sub>2</sub>)<sub>2</sub>COOH, and  $R_2$ ,  $R_4$ ,  $R_6$ , and  $R_7$  are hydrogen.

Another preferred embodiment of the invention shown in structure XIII above is an indolinone compound, where  $R_1$  is (5-methylthiophene)-2-yl,  $R_5$  is -COOH, and  $R_2$ ,  $R_4$ ,  $R_6$ , and  $R_7$  are hydrogen.

In another aspect, the invention features a method of synthesizing an indolinone compound, where the method comprises the steps of:

 $\hbox{(a) reacting an aldehyde of formula XIV with an} \\$  oxindole of formula XV,

XIV

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ΧV

where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are as described herein; and

(b) separating the indolinone compound from the aldehyde and oxindole reactants.

In another aspect, the invention features an indolinone compound having a substituent at the 3 position of the oxindole ring, where the substituent at the 3 position of the oxindole ring is selected from the group consisting of five-membered or six-membered heterocyclic rings. The oxindolonine is further substituted with groups enhancing hydrosolubility as set forth below.

A preferred embodiment of the invention relates to a compound of the following formula:

$$(OR_1)_m$$

$$R_3$$

$$R_3$$

$$R_3$$

$$R_4$$

$$R_4$$

$$R_4$$

$$R_4$$

$$R_5$$

wherein

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(a) A is a five membered heterocyclic ring selected from the following group consisting of thiophene, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, oxazole, isoxazole, thiazole, isothiazole, furan, 1,2,3-oxadiazole, 1,2,4-oxadiazole, 1,2,5-oxadiazole, 1,3,4-oxadiazole, 1,2,3,5-oxatriazole,

1,2,3-thiadiazole, 1,2,4-thiadiazole, 1,2,5-thiadiazole, 1,3,4-thiadiazole, 1,2,3,4-thiatriazole, 1,2,3,5-thiatriazole, and tetrazole

(b) m is zero, 1, or 2; ----

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- (c) R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>2</sub>-C<sub>6</sub> alkanoyl;
- (d) one of  $R_2$  and  $R_3$  independently is hydrogen and the other is a substituent selected from:
- (1) a  $C_1\text{-}C_6$  alkyl group substituted by 1, 2 or 3 hydroxy groups;
- $(2) \ SO_3R_4 \ in \ which \ R_4 \ is \ hydrogen \ or \ C_1\text{--}C_6 \ alkyl$  unsubstituted or substituted by 1, 2 or 3 hydroxy groups;
- $(3) \ SO_2NHR_5 \ in \ which \ R_5 \ is \ as \ R_4 \ defined \ above \ or \\ a \ -(CH_2)_n-N(C_1-C_6 \ alkyl)_2 \ group \ in \ which \ n \ is \ 2 \ or \ 3;$
- (4)  $COOR_6$  in which  $R_6$  is  $C_1$ - $C_6$  alkyl unsubstituted or substituted by phenyl or by 1, 2 or 3 hydroxy groups or phenyl;
  - (5) CONHR, in which R, is hydrogen, phenyl or C<sub>1</sub>-C<sub>6</sub> alkyl substituted by 1, 2 or 3 hydroxy groups or by phenyl;
  - (6)  $NHSO_2R_8$  in which  $R_8$  is  $C_1-C_6$  alkyl or phenyl unsubstituted or substituted by halogen or by  $C_1-C_4$  alkyl;
  - $\label{eq:continuous} \mbox{(7) N(R,)}_2, \mbox{ NHR, or OR, wherein R, is } C_2\text{-}C_6 \mbox{ alkyl}$  substituted by 1, 2 or 3 hydroxy groups;
- (8)  $NHCOR_{10}$ ,  $COCR_{10}$  or  $CH_2OOCR_{10}$  in which  $R_{10}$  is  $C_1$ 25  $C_4$  alkyl substituted by 1, 2 or 3 hydroxy groups;
  - $(9) \qquad \text{NHCONH}_2; \qquad \text{NH-C (NH}_2) = \text{NH}; \qquad \text{C (NH}_2) = \text{NH}; \\ \text{CH}_2\text{NHC (NH}_2) = \text{NH}; \quad \text{CH}_2\text{NH}_2; \quad \text{OPO (OH)}_2; \quad \text{CH}_2\text{OPO (OH)}_2; \quad \text{PO (OH)}_2; \quad \text{or a}$



group wherein X is selected from the group consisting of  $CH_2$ ,  $SO_2$ , CO, or  $NHCO(CH_2)_p$  in which p is 1,2, or 3 and Z is  $CH_2$ , O or  $N-R_{11}$  in which  $R_{11}$  is hydrogen or is as  $R_9$  defined above.

The term "alkanoyl" refers to a chemical moiety with formula  $-(R)_n$ -CO-R', where R and R' are selected from the group consisting of alkyl or aryl and n is 0 or 1.

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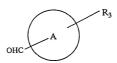
Inhibitors of protein kinase catalytic activity are known in the art. Small molecule inhibitors typically block the binding of substrates by tightly interacting with the protein kinase active-site. Indolinone compounds, for example, can bind to the active-site of a protein kinase and inhibit the molecule effectively, as measured by inhibition constants on the order of 10-6 M.

A preferred embodiment of the invention relates to an hydrosoluble indolinone compound that inhibits the catalytic activity of a FLK protein kinase. The indolinone preferably inhibits the catalytic activity of the FLK protein kinase with an IC50 less than 50  $\mu$ M, more preferably with an IC50 less than 5  $\mu$ M, and most preferably with an IC50 less than 0.5  $\mu$ M.

In another aspect, the invention features a method of synthesizing a hydrosoluble indolinone compound, where the method comprises the steps of:

(a) reacting an aldehyde of formula XVI with an oxindole of formula XVII,

XVI



XVII

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- (a) A is a five or six membered ring comprised of atoms selected from the group consisting of oxygen, carbon, sulfer and nitrogen
  - (b) m is zero, 1, or 2;
  - (c) R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>2</sub>-C<sub>6</sub> alkanoyl;
- (d) one of  $R_2$  and  $R_3$  independently is hydrogen and the other is a substituent selected from:
- (1) a  $C_1\text{-}C_6$  alkyl group substituted by 1, 2 or 3 hydroxy groups;

. . . . . .

- (2)  $SO_3R_4$  in which  $R_4$  is hydrogen or  $C_1\text{-}C_6$  alkyl unsubstituted or substituted by 1, 2 or 3 hydroxy groups;
- (3) SO<sub>2</sub>NHR<sub>5</sub> in which R<sub>5</sub> is as R<sub>4</sub> defined above or a -- (CH<sub>2</sub>)<sub>n</sub> N(C<sub>3</sub>-C<sub>5</sub> alkyl)<sub>2</sub> group in which n is 2 or 37
- (4) COOR, in which  $R_6$  is  $C_1$ - $C_6$  alkyl unsubstituted or substituted by phenyl or by 1, 2 or 3 hydroxy groups or phenyl;
- (5) CONHR, in which R, is hydrogen, phenyl or  $C_1$   $C_4$  alkyl substituted by 1, 2 or 3 hydroxy groups or by phenyl;
- (6)  $NHSO_2R_8$  in which  $R_8$  is  $C_1$ - $C_4$  alkyl or phenyl unsubstituted or substituted by halogen or by  $C_1$ - $C_4$  alkyl;
- $\label{eq:continuous} \mbox{(7) N(R,)}_2, \mbox{ NHR, or OR, wherein R, is $C_2$-$C_6$ alkyl substituted by 1, 2 or 3 hydroxy groups;}$
- (8) NHCOR<sub>10</sub>, OOCR<sub>10</sub> or CH<sub>2</sub>OOCR<sub>10</sub> in which R<sub>10</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl substituted by 1, 2 or 3 hydroxy groups;
- $(9) \qquad \text{NHCONH}_2; \qquad \text{NH-C (NH}_2) = \text{NH}; \qquad \text{C (NH ) = NH}; \\ \text{CH}_2\text{NHC (NH}_2) = \text{NH}; \quad \text{CH}_2\text{NH}_2; \quad \text{OPO (OH)}_2; \quad \text{CH}_2\text{OPO (OH)}_2; \quad \text{PO (OH)}_2; \quad \text{or a}$



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group wherein X is selected from the group consisting of  $CH_2$ ,  $SO_2$ , CO, or  $NHCO\left(CH_2\right)$ , in which p is 1,2, or 3 and Z is  $CH_2$ , O or  $N-R_{11}$  in which  $R_{11}$  is hydrogen or is as R, defined above; and

(b) separating the indolinone compound from the aldehyde and oxindole reactants.

Another aspect of the invention features a pharmaceutical composition comprising an oxidolinone

compound of the invention and a physiologically acceptable carrier or diluent.

In the embodiments set forth below, several preferred subclasses of compounds having activity against Flk are set forth. Thus, in one embodiment, the invention provides compounds having the formula:

$$R_3$$
 $R_4$ 
 $R_5$ 
 $R_4$ 
 $R_5$ 
 $R_6$ 
 $R_7$ 
 $R_7$ 

wherein

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 $R_1$  is hydrogen or alkyl (preferably lower alkyl, more preferably methyl);

R2 is oxygen or sulfur;

R<sub>3</sub> is hydrogen or methyl;

 $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are each independently selected from the group consisting of hydrogen (preferably at least two or three of  $R_4$ ,  $R_5$ ,  $R_6$  and  $R_7$  are hydrogen), alkyl (preferably lower alkyl, more preferably methyl), halogen, NO $_{24}$ , and NRR';

 $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ , and  $R_6$  are each independently selected from the group consisting of hydrogen, alkyl, halogen,  $NO_2$ ,  $NRR^1$  (where taken together  $NRR^1$  may form a five or six member non-aromatic heterocyc optionally substituted with COH), OH, ORNRR<sup>1</sup>, and OR;

R is hydrogen, alkyl or aryl; and

R' is hydrogen, alkyl or aryl.

In another embodiment, the invention provides compounds having the formula:

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wherein

 $R_1$  is hydrogen or alkyl (preferably lower alkyl, more preferably methyl);

R2 is oxygen or sulfer;

R, is hydrogen or methyl;

 $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are each independently selected from the group consisting of hydrogen, alkyl (preferably lower alkyl, more preferably methyl), halogen, and NRR';

 $R_2$ .,  $R_3$ .,  $R_4$ ., and  $R_5$ ., are each independently selected from the group consisting of hydrogen, alkyl, halogen, and  $(alkyl)_nCO_2R$ ;

R is hydrogen, alkyl or aryl; and

R' is hydrogen, alkyl or aryl.

In another embodiment, the invention provides compounds having the formula:

$$R_5$$
 $R_6$ 
 $R_7$ 
 $R_7$ 
 $R_7$ 
 $R_8$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 

wherein

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10 R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub>, are each independently selected from the group consisting of hydrogen, alkyl, halogen, and (alkyl)<sub>n</sub>CO<sub>2</sub>R;

 $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are each independently selected from the group consisting of hydrogen, alkyl (preferably lower alkyl, more preferably methyl), halogen, and NRR';

 $R_s$  and  $R_s$  are independently hydrogen or alkyl;

R is hydrogen, alkyl or aryl; and

R' is hydrogen, alkyl or aryl.

In another embodiment, the invention provides compounds having the formula:

$$\begin{array}{c|c} R_4 & R_0 & R_1 \\ \hline \\ R_6 & R_7 \\ \hline \\ R_7 & R_0 \\ \hline \end{array}$$

### (XVIII)

wherein

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 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_7$  are each independently selected from the group consisting of hydrogen, alkyl (preferably lower alkyl, more preferably methyl), halogen and NRR';

 $R_{\text{s}}$  and  $R_{\text{s}}$  are independently hydrogen or alkyl;

R is hydrogen, alkyl or aryl; and

R' is hydrogen, alkyl or aryl.

In another aspect, the invention features a method of synthesizing an indolinone compound, where the method comprises the steps of:

- (a) reacting an appropriate aldehyde with an appropriate oxindole,
- (b) separating the indolinone compound from the aldehyde and oxindole reactants.

In another aspect, the invention features an indolinone compound, salt, ester, amide, prodrug, isomer, or metabolite thereof that modulates the catalytic activity of a protein kinase.

The term "modulates" refers to the ability of a compound to alters the catalytic activity of a protein kinase. A modulator preferably activates the catalytic activity of a protein kinase, more preferably activates or inhibits the catalytic activity of a protein kinase depending on the concentration of the compound exposed to the protein kinase, or most preferably inhibits the catalytic activity of a protein kinase.

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The term "protein kinase" defines a class of proteins that regulate a variety of cellular functions. Protein kinases regulate cellular functions by reversibly phosphorylating protein substrates which thereby changes the conformation of the substrate protein. The conformational change modulates catalytic activity of the substrate or its ability to interact with other binding partners.

The term "catalytic activity", in the context of the invention, defines the rate at which a protein kinase phosphorylates a substrate. Catalytic activity can be measured, for example, by determining the amount of a substrate converted to a product as a function of time. Phosphorylation of a substrate occurs at the active-site of a protein kinase. The active-site is normally a cavity in which the substrate binds to the protein kinase and is phosphorylated.

A preferred embodiment of the invention relates to an indolinone compound that inhibits the catalytic activity of a FLK protein kinase. The indolinone preferably inhibits the catalytic activity of the FLK protein kinase

with an IC50 less than 50  $\mu$ M, more preferably with an IC50 less than 5  $\mu$ M, and most preferably with an IC50 less than 0.5  $\mu$ M.

The term "FLK" refers to a protein kinase that phosphorylates protein substrates on tyrosine residues. The FLK protein kinase regulates cellular functions in response to the VEGF growth factor. These cellular functions include, but are not limited to, cellular proliferation, and in particular, blood vessel proliferation in tissues.

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The term "IC50", in the context of the invention, refers to a parameter that describes the concentration of a particular indolinone required to inhibit 50% of the FLK protein kinase catalytic activity. The IC50 parameter can be measured using an assay described herein and by varying the concentration of a particular indolinone compound.

Another aspect of the invention features a pharmaceutical composition comprising, consisting essentially of, or consisting of an indolinone compound, salt, ester, amide, prodrug, isomer, or metabolite thereof of the invention and a physiologically acceptable carrier or diluent.

The term "pharmaceutical composition" refers to a mixture of an indolinone compound of the invention with other chemical components, such as diluents or carriers. The pharmaceutical composition facilitates administration of the compound to an organism. Multiple techniques of administering a compound exist in the art including, but not limited to, oral, injection, aerosol, parenteral, and

topical administration. Pharmaceutical compositions can also be obtained by reacting compounds with inorganic acids such as hydrochloric acid, hydrobromic acid, sulfuric acid, nitric acid, phosphoric acid, methanesulfonic acid, ethanesulfonic acid, ptoluenesulfonic acid, salicylic acid and the like.

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The term "physiologically acceptable" defines a carrier or diluent that does not cause significant irritation to an organism and does not abrogate the biological activity and properties of the compound.

The term "carrier" defines a chemical compound that facilitates the incorporation of a compound into cells or tissues. For example dimethyl sulfoxide (DMSO) is a commonly utilized carrier as it facilitates the uptake of many organic compounds into the cells or tissues of an organism.

The term "diluent" defines chemical compounds diluted in water that will dissolve the compound of interest as well as stabilize the biologically active form of the compound. Salts dissolved in buffered solutions are utilized as diluents in the art. One commonly used buffered solution is phosphate buffered saline because it mimics the salt conditions of human blood. Since buffer salts can control the pH of a solution at low concentrations, a buffered diluent rarely modifies the biological activity of a compound.

Another aspect of the invention features a method of preventing or treating an abnormal condition in an organism. The abnormal condition is associated with an

aberration in a signal transduction pathway characterized by an interaction between a protein kinase and a natural binding partner. The method comprises the following steps: (a) administering a compound of the invention to an organism; and (b) promoting or disrupting the abnormal interaction.

The term "preventing" refers to a method of barring the organism from acquiring the abnormal condition.

The term "treating" refers to a method of alleviating or abrogating the abnormal condition in the organism.

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The term "organism" relates to any living entity comprised of at least one cell. An organism can be as simple as one eukaryotic cell or as complex as a mammal.

The term "abnormal condition" refers to a function in the cells or tissues of an organism that deviates from their normal functions in that organism. An abnormal condition can relate to cell proliferation, cell differentiation, or cell survival.

Aberrant cell proliferative conditions include cancers such as fibrotic and mesangial disorders, abnormal angiogenesis and vasculogenesis, wound healing, psoriasis, diabetes mellitus, and inflammation.

Aberrant differentiation conditions include, but are not limited to neurodegenerative disorders, slow wound healing rates, and tissue grafting techniques.

Aberrant cell survival conditions relate to conditions in which programmed cell death (apoptosis) pathways are activated or abrogated. A number of protein kinases are associated with the apoptosis pathways.

Aberrations in the function of any one of the protein kinases could lead to cell immortality or premature cell death.

Cell proliferation, differentiation, and survival are phenomena simply measured by methods in the art. These methods can involve observing the number of cells or the appearance of cells under a microscope with respect to time (days).

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The term "administering" relates to a method of incorporating a compound into cells or tissues of an organism. The abnormal condition can be prevented or treated when the cells or tissues of the organism exist within the organism or outside of the organism. Cells existing outside the organism can be maintained or grown in cell culture dishes. For cells harbored within the organism, many techniques exist in the art to administer compounds, including (but not limited to) oral, parenteral, dermal, injection, and aerosol applications. For cells outside of the organism, multiple techniques exist in the art to administer the compounds, including (but not limited to) cell microinjection techniques, transformation techniques, and carrier techniques.

The aberrant condition can also be prevented or treated by administering a group of cells having an aberration in a signal transduction process to an organism. The effect of administering a compound on organism function can then be monitored. The art contains multiple methods of introducing a group of cells to an organism as well as methods of administering a compound to

an organism. The organism is preferably a frog, more preferably a mouse, rat, rabbit, guinea pig, or goat, and most preferably a monkey or ape.

The term "signal transduction pathway" refers to the molecules that propagate an extracellular signal through the cell membrane to become an intracellular signal. This signal can then stimulate a cellular response. The polypeptide molecules involved in signal transduction processes are typically receptor and non-receptor protein kinases, receptor and non-receptor protein phosphatases, nucleotide exchange factors, and transcription factors.

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The term "aberration", in conjunction with a signal transduction process, refers to a protein kinase that is over- or under-expressed in an organism, mutated such that its catalytic activity is lower or higher than wild-type protein kinase activity, mutated such that it can no longer interact with a natural binding partner, is no longer modified by another protein kinase or protein phosphatase, or no longer interacts with a natural binding partner.

The term "natural binding partner" refers to a polypeptide that normally binds to the intracellular region of a protein kinase in a cell. These natural binding partners can play a role in propagating a signal in a protein kinase signal transduction process. The natural binding partner can bind to a protein kinase intracellular region with high affinity. High affinity represents an equilibrium binding constant on the order of

10.6 M or less. However, a natural binding partner can also transiently interact with a protein kinase intracellular region and chemically modify it. Protein kinase natural binding partners are chosen from a group consisting of, but not limited to, src homology 2 (SH2) or 3 (SH3) domains, other phosphoryl tyrosine binding (PTB) domains, and other protein kinases or, protein phosphatases.

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The term "promoting or disrupting the abnormal interaction" refers to a method that can be accomplished by administering a compound of the invention to cells or tissues in an organism. A compound can promote an interaction between a protein kinase and natural binding partners by forming favorable interactions with multiple amino acids at the complex interface. Alternatively, a compound can inhibit an interaction between a protein kinase and natural binding partners by compromising favorable interactions formed between amino acids at the complex interface.

A preferred embodiment of the invention relates to the method of treating an abnormal condition in an organism, where the organism is a mammal.

The term "mammal" refers preferably to such organisms as mice, rats, rabbits, guinea pigs, and goats, more preferably to monkeys and apes, and most preferably to humans.

Another preferred embodiment of the invention relates to a method of treating or preventing an abnormal condition associated with the FLK protein kinase. Another preferred embodiment of the invention relates to an indolinone compound that inhibits the catalytic activity of a platelet derived growth factor protein kinase. The indolinone preferably inhibits the catalytic activity of the platelet derived growth factor protein kinase with an IC<sub>50</sub> less than 50  $\mu$ M, more preferably with an IC<sub>50</sub> less than 5  $\mu$ M, and most preferably with an IC<sub>50</sub> less than 0.5  $\mu$ M.

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The term "platelet derived growth factor" refers to a protein kinase that phosphorylates substrates on tyrosine residues. The platelet derived growth factor protein kinase regulates cellular functions in response to the PDGF growth factor. These cellular functions include, but are not limited to, cellular proliferation.

The chemical formulae referred herein may exhibit the phenomena of tautomerism or structural isomerism. For example, the compounds described herein may be adopt a cis or trans conformation about the double bond connecting the indolinone 3-substituent to the indolinone ring, or may be mixtures of cis and trans isomers. As the formulae drawing within this specification can only represent one possible tautomeric or structural isomeric form, it should be understood that the invention encompasses any tautomeric or structural isomeric form, or mixtures thereof, which possesses the ability to regulate, inhibit and/or modulate tyrosine kinase signal transduction or cell proliferation and is not limited to any one tautomeric or structural isomeric form utilized within the formulae drawing.

In addition to the above-described compounds, the invention is further directed, where applicable, to solvated as well as unsolvated forms of the compounds (e.g. hydrated forms) having the ability to regulate and/or modulate cell proliferation.

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The compounds described herein may be prepared by any process known to be applicable to the preparation of chemically-related compounds. Suitable processes are illustrated in the examples. Necessary starting materials may be obtained by standard procedures of organic chemistry.

An individual compound's relevant activity and efficacy as an agent to affect receptor tyrosine kinase mediated signal transduction may be determined using available techniques. Preferentially, a compound is subjected to a series of screens to determine the compound's ability to modulate, regulate and/or inhibit cell proliferation. These screens, in the order in which they are conducted, include biochemical assays, cell growth assays and in vivo experiments.

The summary of the invention described above is not limiting and other features and advantages of the invention will be apparent from the following detailed description of the invention, and from the claims.

# Brief Description of the Drawings and Tables

Figure 1 shows illustrative type A oxindoles. Figure 2 shows illustrative type B aldehydes.

Table 1 depicts examples of compounds of the invention. The table illustrates the molecular structure of each indolinone, the molecular weight of the compound, and the chemical formula of the compound.

Table 2 depicts the biological activity of select compounds of the invention. Listed are the chemical structure of the compound with  ${\rm IC}_{50}$  values measured in FLK-1 biological inhibition assays.

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Table 3 shows preferred indole based aldehydes that can be used in the present invention.

Table 4 shows preferred oxindoles that can be used in the present invention.

Table 5 depicts examples of compounds of the invention. The table illustrates the molecular structure of each indolinone, the molecular weight of the compound, and the chemical formula of the compound.

Tables 6 and 7 depicts the biological activity of select compounds of the invention. Listed are the chemical structure of the compound with  $IC_{50}$  values measured in FLK-1 and platelet derived growth factor protein kinase (PDGFR) biological inhibition assays.

Table 8 depicts examples of compounds of the invention. The table illustrates the molecular structure of exemplary indolinones and the biological activity of select compounds of the invention. Listed are the chemical structure of the compound with  $\rm IC_{50}$  values measured in FLK-1 biological inhibition assays.

Table 9 lists exemplary compounds of the invention.

Table 10 shows FLK activity data for illustrative compounds of the invention.

Table 11 shows type A oxindols.

\_Table 12 shows type B aldehydes.

Table 13 shows the names of several indolinone compounds of the present invention.

Table 14 shows kinase data for the compounds listed in Table 13 as determined using the assays described herein.

# 10 Detailed Description of the Invention

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The invention is directed in part towards designing protein kinase inhibitors that obliterate tumors by severing their sources of sustenance. The inhibitors are designed to specifically bind protein kinases overexpressed in the vasculature that supply tumors with sustenance. One such protein kinase target is FLK-1, which is over-expressed in the proliferating endothelial cells of a growing tumor, but not in the surrounding quiescent endothelial cells. Plate et al., 1992, Nature 359:845-848.

FLK-1 is activated upon binding VEGF, a strong regulator for endothelial cell proliferation as well as normal and pathological angiogenesis. Klagsburn and Soker, 1993, Current Biology 3:699-702. Thus, compounds that specifically inhibit the FLK protein kinase are potential anti-cancer agents as they may decrease the vasculature that nourishes tumors. These inhibitors will most likely result in minimizing and even obliterating

solid tumors. In addition, compounds that specifically inhibit FLK will potentially represent a new generation of cancer therapeutics as they will most likely cause few side effects. These potential properties are a welcome improvement over the currently utilized cancer therapeutics that cause multiple side effects and deleteriously weaken patients.

## Synthesis of Indolinone Compounds

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The indolinone compounds of the invention are synthesized by reacting an aldehyde with an oxindol as shown in the examples provided herein. Descriptions of methods for synthesizing indolinone compounds are provided in the examples described herein. The examples fully describe the solvents, temperatures, techniques, and other conditions utilized for the invention. Other synthetic techniques, such as those International patent publications WO described in 96/22976, published August 1, 1996 by Ballinari et al., and WO 96/40116, published December 19, 1996 by Tang et al. may also be used or adapted by those skilled in the art to make the compounds of the present invention. Descriptions of the methods used to specifically synthesize the indolinone compounds of the invention, are disclosed herein.

## 25 Biological Activity of Indolinone Compounds

Indolinone compounds of the invention can be tested for their ability to activate or inhibit protein kinases

in biological assays. The methods used to measure indolinone modulation of protein kinase function are described herein. Indolinone compounds of the invention were tested for their ability to inhibit the FLK protein kinase. The biological assay and results of these inhibition studies are reported herein.

# Target Diseases to be Treated by Indolinone Compounds

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Protein kinases are essential regulatory molecules that control a variety of cellular functions. For this reason, any alteration in the function of a protein kinase can cause an abnormal condition in an organism. One of the many functions controlled by protein kinases is cell proliferation.

Alterations in the function of a protein kinase that normally regulates cell proliferation can lead to enhanced or decreased cell proliferative conditions evident in certain diseases. Aberrant cell proliferative conditions include cancers such as fibrotic and mesangial disorders, abnormal angiogenesis and vasculogenesis, wound healing, psoriasis, restenosis, diabetes mellitus, and inflammation.

Fibrotic disorders and mesangial cell proliferative disorders are described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

Angiogenic and vasculogenic disorders result from excess proliferation of blood vessels. Blood vessel proliferation is necessary in a variety of normal

physiological processes such as embryonic development, corpus luteum formation, wound healing and organ regeneration. However, blood vessel proliferation is also essential in cancer tumor development. Other examples of blood vessel proliferative disorders include arthritis, where new capillary blood vessels invade the joint and addition, blood vessel destroy cartilage. In proliferative diseases include ocular diseases, such as diabetic retinopathy, where new capillaries in the retina invade the vitreous, bleed and cause blindness. disorders related to the shrinkage, Conversely, contraction or closing of blood vessels, such as restenosis, are also implicated in adverse regulation of RPKs or RPPs.

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Moreover, vasculogenesis and angiogenesis are associated with the growth of malignant solid tumors and metastasis. A vigorously growing cancer tumor requires a nutrient and oxygen rich blood supply to continue growing. As a consequence, an abnormally large number of capillary blood vessels often grow in concert with the tumor and act as supply lines to the tumor. In addition to supplying nutrients to the tumor, the new blood vessels embedded in a tumor provide a gateway for tumor cells to enter the circulation and metastasize to distant sites in the organism. Folkman, 1990, J. Natl. Cancer Inst. 82:4-6.

Angiogenic and vasculogenic disorders are closely linked to the FLK protein kinase. FLK-1 is activated upon binding VEGF, a strong regulator for endothelial cell proliferation as well as normal and pathological

angiogenesis. Klagsburn and Soker, 1993, Current Biology 3:699-702. Thus, compounds that specifically inhibit the FLK protein kinase are potential anti-cancer agents as they may decrease the vasculature that nourishes tumors. These inhibitors will most likely result in minimizing and even obliterating solid tumors. In addition, compounds that specifically inhibit FLK will potentially represent a new generation of cancer therapeutics as they will most likely cause few side effects. These potential properties are a significant improvement over the currently utilized cancer therapeutics that cause multiple side effects and deleteriously weaken patients.

In addition to cell proliferation, some RPKs and RPPs regulate the penultimate cellular functions, cell survival and cell death. Glial derived growth factor (GDNF) activates c-ret, for example, by bringing multiple c-ret receptors together into close proximity and promoting cross phosphorylation of the intracellular regions. Signal transduction molecules that form a complex with cret as a result of these phosphoryl moieties, such as grb-2, sos, ras, and raf, propagate a signal in the cell that promotes neural survival. Thus, compounds that promote the interactions of these stimulatory molecules of c-ret would enhance the activity of c-ret. Alternatively, protein phosphatases can remove the phosphoryl moieties placed on the intracellular region of c-ret in response to GDNF, and thus inhibit the signaling capability of c-ret. Thus compounds that inhibit phosphatases of c-ret will enhance the signaling capacity of c-ret. In the context

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of the present invention, the *c-ret* protein kinase could be activated by indolinone compounds that are modified with substituents, particularly at the 5 position of the oxindole ring.

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c-ret is implicated in the development and survival of enteric, synaptic, and sensory neurons and neurons of the renal system upon stimulation by GDNF. Lack of function mutations in c-ret can lead to Hirschsprung's disease, for example, which manifests itself as a decrease in intestinal tract innervation in patients. Thus, compounds that activate c-ret are potential therapeutic agents for the treatment of neurodegenerative disorders, including, but not limited to, Hirschsprung's disease, Parkinson's disease, Alzheimer's disease, and amyotrophic lateral sclerosis. Compounds that inhibit c-ret function are possible anti-cancer agents as over-expression of ret in cells is implicated in cancers, such as cancer of the thyroid.

# Pharmaceutical Compositions and Administration of Indolinone Compounds

Methods of preparing pharmaceutical formulations of the compounds, methods of determining the amounts of compounds to be administered to a patient, and modes of administering compounds to an organism are disclosed in International Patent Publication No. WO 96/22976, published August 1, 1996 by Ballinari et al., which is incorporated herein by reference in its entirety, including any drawings. Those skilled in the art will

appreciate that such descriptions are applicable to the present invention and can be easily adapted to it. The mechanism of such action and possible uses for such compounds are described in International Patent Publication WO 96/40116, published December 19, 1996 by Tang et al.

The compounds described herein can be administered to a human patient per se, or in pharmaceutical compositions where it is mixed with suitable carriers or excipient(s). Techniques for formulation and administration of the compounds of the instant application may be found in "Remington's Pharmaceutical Sciences," Mack Publishing Co., Easton, PA, latest edition or in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

## Effective Dosage

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Pharmaceutical compositions suitable for use in the present invention include compositions wherein the active ingredients are contained in an amount effective to achieve its intended purpose. More specifically, a therapeutically effective amount means an amount of compound effective to prevent, alleviate or ameliorate symptoms of disease or prolong the survival of the subject being treated. Determination of a therapeutically effective amount is well within the capability of those skilled in the art, especially in light of the detailed disclosure provided herein and in International Patent

Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

### Packaging

The compositions may, if desired, be presented in a pack or dispenser device which may contain one or more unit dosage forms containing the active ingredient according to the description provided in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

## 10 Examples

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The examples below are not limiting and are merely representative of various aspects and features of the present invention. The examples demonstrate methods of synthesizing indolinone compounds of the invention. The examples also demonstrate the specificity as well as the potency with which these compounds inhibit protein kinase function in cells.

### Example 1: Compound Synthesis

The compounds of the present invention may be synthesized according to known techniques such as those described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al. The following represent preferred methods for synthesizing the compounds of the claimed invention.

(a) Preparation of 4-Methyl-2-oxindole. Diethyl oxalate (30 mL) in 20 mL of dry ether was added with stirring to 19 g of potassium ethoxide suspended in 50 mL of dry ether. The mixture was cooled in an ice bath and 20 mL of 3-nitro-o-xylene in 20 mL of dry ether was slowly added. The thick dark red mixture was heated to reflux for 0.5 hr, concentrated to a dark red solid, and treated with 10% sodium hydroxide until almost all of the solid dissolved. The dark red mixture was treated with 30% hydrogen peroxide until the red color changed to yellow. The mixture was treated alternatively with 10% sodium hydroxide and 30% hydrogen peroxide until the dark color was no longer present. The solid was filtered off and the filtrate acidified with 6N hydrochloric acid. resulting precipitate was collected by vacuum filtration, washed with water, and dried under vacuum to give 9.8 g (45% yield) of 1-methyl-6-nitrophenylacetic acid as an off-white solid. The sold was hydrogenated in methanol over 10% palladium on carbon to give 9.04 g of the title compound as a white solid.

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(b) Preparation of 5-Nitro-2-oxindole. The 2-oxindole (6.5 g) was dissolved in 25 mL of concentrated sulfuric acid and the mixture maintained at -10 -15 °C while 2.1 mL of fuming nitric acid was added dropwise. After the addition of the nitric acid the reaction mixture was stirred at 0°C for 0.5 hr and poured into ice water. The precipitate was collected by filtration, washed with water and crystallized from 50% of the acetic acid. The

final crystal was then filtered, washed with water and dried under vacuum to give 6.3g (70%) of 5-nitro-2-oxindole.

(c) Preparation of 5-Amino-2-oxindole. The 5-nitro-2-oxindole (6.3 g) was hydrogenated in methanol over 10% palladium on carbon to give 3.0 g (60% yield) of the title compound as a white solid.

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- (d) Preparation of 5-Fluoro-2-oxindole. 5-Fluoroisatin (8.2 g) was dissolved in 50 mL of hydrazine hydrate and refluxed for 1 hr. The reaction mixtures were then poured in ice water. The precipitate was then filtered, washed with water and dried under vacuum oven to give 6.0 g of 5-fluoro-2-oxindole (79% yield).
- (e) Preparation of 5-Bromo-2-oxindole. 2-Oxindole

  (1.3 g) in 20 mL of acetonitrile was cooled to -10°C and

  2.0 g of N-bromosuccinimide was slowly added with
  stirring. The reaction was stirred for 1 hour at -10°C and
  2 hours at 0°C. The precipitate was collected, washed with
  water and dried to give 1.9 g (90% yield) of the title

  compound.
  - (f) Preparation 5-Carboxy-2-oxindole

Step 1. Synthesis of 5-Methoxycarbonyl-2-oxindole. 5-Iodo-2-oxindole (17g) was refluxed with 2g of palladium diacetate, 18.15g of triethylamine, 150 mL of methanol, 15 mL of dimethylsulfoxide and 2.6 g of DPPP in

an atmosphere saturated with carbon monoxide. After 24 hours, the reaction was filtered to remove the catalyst and the filtrate concentrated. The concentrate was chromatographed on a silica gel in 30% ethyl acetate in hexane. The fractions containing product were concentrated and allowed to stand. The precipitated product was collected by vacuum filtration to give 0.8g (7%) of the title compound as an off-white solid.

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Step 2: Synthesis of 5-Carboxy-2-oxindole. 5-Methoxycarbonyl-2-oxindole (1g) and 1g of sodium hydroxide in 20 mL of methanol was refluxed for 3 hours. The reaction mixture was cooled and concentrated to dryness. The residue was dissolved in water and extracted twice with ethyl acetate. The aqueous layer was acidified with 6 N hydrochloric acid and the precipitated solid collected, washed with water, and dried to give 0.7g (78%) of the title compound as an off-white solid.

(g) Preparation of 5-Carboxyethyl-2-oxindole
Step 1: Synthesis of 5-Chloroacetyl-2oxindole. Aluminum chloride (30.8 g) and 2-oxindole
(5.0g) were added to 200 ml of carbon disulfide at room
temperature and the mixture stirred. Chloroacetyl
chloride (3.8 mL) was added and the stirring continued for
1 hour. The mixture was heated to reflux for 3 hours,
cooled and the solvent decanted. The residue was stirred
in ice water until it became a solid suspension. The
solid was collected by vacuum filtration, washed in water,
and dried to give 7.0g (90% yield) of the title compound.

Step 2: Synthesis of 5-Chloroethyl-2-oxindole. 5-Chloroacetyl-2-oxindole (7.0g) was added to 25 mL of trifluoroacetic acid and the mixture cooled in an ice bath with stirring. Triethylsilane (12.3 mL) was added dropwise over 2 minutes. The reaction was then stirred at room temperature for 4 hours and poured into ice water. Hexane was added, the mixture stirred vigorously, and the solid collected by vacuum siltation and washed with hexane to give 5.9g (91% yield) of the product as a white solid.

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Step 3: Synthesis of 5-Cyanoethyl-2-oxindole. Potassium cyanide (2.02 g) was added to 15 mL of dimethylsulfoxide and heated to 90°C 5-Chloroethyl-2-oxindole (3.0 g) dissolved in 5mL of dimethylsulfoxide was added slowly with stirring, and the reaction heated to 150°C for 2 hours. The mixture was cooled, poured into ice water and the precipitate collected by vacuum filtration, washed with water, and dried to give crude product. The crude material was chromatographed on silica gel in 5% methanol in chloroform to give 1.2g (42% yield) of the title compound.

Step 4: Synthesis of 5-Carboxyethyl-2-oxindole. 5-Cyanoethyl-2-oxindole (4.02g) in 10mL of water containing 25mL of concentrated hydrochloric acid was refluxed for 4 hours. The mixture was cooled, water added and the resulting solid collected by vacuum filtration, washed with water and dried to give 1.9g (44% yield) of the title compound as a yellow solid.

(h) Preparation of 3,5-Dimethylpyrrol-2-carboxal-dehyde

5-Cyanoethly-2-oxindole (4.02g) in 10 mL of water containing 25mL of concentrated hydrochloric acid was refluxed for 4 hours. The mixture was cooled, water added and the resulting solid collected by vacuum filtration, washed with water and dried to give 1.9g (44% yield) of the title compound as a yellow solid.

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(i) Preparation of 3,5-Dimethylpyrrol-2-carboal-dehyde

To a solution dimethylformamide (80.4g) and 1L of dichloroethane at 0°C was added phosphorous oxychoride (153.3g) over a few minutes and the reaction stirred for 1-2 hr at 0°C 2,4-Dimethylpyrrole (114.6g) was added dropwise to the above solution at temperature below 5°C. After the addition was complete the reaction was heated and the aqueous layer isolated and saved. The organic layer was extracted again with 300mL of water and the two aqueous layers combined. The aqueous phase was extracted with 200mL of dichloroethane and the organic layer discarded. The aqueous phase was cooled to 10°C and adjusted to pH 10 with 10% sodium hydroxide. The mixture was stirred at 10°C for 2hr. The yellow solid was collected by vacuum filtration and washed thoroughly with water. The solid was dried at room temperature under vacuum to give 110.8g (90% yield of 2,4-dimethyl-5formylpyrrole.

(j) Preparation of 3,5-Diethylpyrrol-2-carboxaldehyde:

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The solution of 25.0g of 3,5-heptanedione and 42.3g of diethyl aminomalonate hydrochloride in 200 mL of acetic acid was heated to 95-10°C for 1.25 hr. Sodium acetate was added and the reaction mixture was stirred for 5.35 hr and cooled down for 4 hr. The salt was filtered and washed with acetic acid. The acetic acid solution was then concentrated and the residue poured into 800 mL of water. The yellow solid was filtered and dried in a vacuum oven overnight to give 36.0g of ethyl 3,5-diethlypyrrol-2-carboxalate as the orange liquid (92% yield).

Decarboxylation of ethyl 3,5-diethylpyrro-2-carboxalate upon hydrolysis gave 2,4-diethylpyrrole. The title compound was then synthesized via Vilsmeier formulation of 2,4-diethlpyrrole with the same condition used for the preparation of 3,5-dimethylpyrrol-5-carboxaldehyde.

(k) Preparation of 3,5-Diisopropylpyrrol-2-carboxaldehyde

The procedure was the same as the one for the preparation of 3,5-diethylpyrrol-2-carboxaldehyde except starting with 2,6-dimethyl-3,5-heptanedione.

# Example 2: FLK Inhibition by Indolinone compounds of the Invention

An enzyme linked immunosorbent assay (ELISA) was conducted to measure the catalytic activity of the FLK-1

receptor and more specifically, the inhibition or activation of indolinone compounds on the catalytic activity of the FLK-1 receptor. Specifically, the following assay was conducted to measure catalytic activity of the FLK-1 receptor in FLK-1/NIH3T3 cells.

The materials and protocol for the FLK-1 ELISA assay are as described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

Selected compounds were tested in the FLK-1 ELISA assay. IC50 measurements are reported in the tables. Derivatives of 3-[(indole-3-yl)methylene]-2-indolinone compounds with a methyl substituent at the 1' position proved to be the most potent inhibitors of the group of compounds tested in the assay.

# 15 Example 3: In Vitro RTK Assays

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The following in vitro assays may be used to determine the level of activity and effect of the different compounds of the present invention on one or more of the RTKs. Similar assays can be designed along the same lines for any tyrosine kinase using techniques well known in the art.

# (a) Enzyme Linked Immunosorbent Assay (ELISA)

Enzyme linked immunosorbent assays (ELISA) may be used to detect and measure the presence of tyrosine kinase activity. The ELISA may be conducted according to known protocols which are described in, for example, Voller, et al., 1980, "Enzyme-Linked Immunosorbent Assay," In: Manual

of Clinical Immunology, 2d ed., edited by Rose and Friedman, pp 359-371 Am. Soc. Of Microbiology, Washington, D.C.

The disclosed protocol may be adapted for determining activity with respect to a specific RTK. For example, the preferred protocols for conducting the ELISA experiments for specific RTKs is provided below. Adaptation of these protocols for determining a compound's activity for other members of the RTK family, as well as other receptor and non-receptor tyrosine kinases, are within the scope of those in the art.

#### (i) FLK-1 ELISA

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An ELISA assay was conducted to measure the kinase activity of the FLK-1 receptor and more specifically, the inhibition or activation of protein tyrosine kinase activity on the FLK-1 receptor. Specifically, the following assay was conducted to measure kinase activity of the FLK-1 receptor in FLK-1/NIH3T3 cells.

#### Materials And Methods.

Materials. The following reagents and supplies were
used:

- a. Corning 96-well ELISA plates (Corning Catalog No. 25805-96);
  - o. Cappel goat anti-rabbit IgG (catalog no. 55641);
- c. PBS (Gibco Catalog No. 450-1300EB);

- d. TBSW Buffer (50 mM Tris (pH 7.2), 150 mM NaCl and 0.1% Tween-20);
- e. Ethanolamine stock (10% ethanolamine (pH 7.0),
  stored at 4°C);
- 5 f. HNTG buffer (20mM HEPES buffer (pH 7.5), 150mM NaCl, 0.2% Triton X-100, and 10% glycerol);
  - g. EDTA (0.5 M (pH 7.0) as a 100X stock);
  - h. Sodium ortho vanadate (0.5 M as a 100% stock);
  - i. Sodium pyro phosphate (0.2M as a 100X stock);
  - j. NUNC 96 well V bottom polypropylene plates (Applied Scientific Catalog No. AS-72092);
  - k. NIH3T3 C7#3 Cells (FLK-1 expressing cells);
  - DMEM with 1X high glucose L Glutamine (catalog No. 11965-050);
- m. FBS, Gibco (catalog no. 16000-028);

n. L-glutamine, Gibco (catalog no. 25030-016);

- o. VEGF, PeproTech, Inc. (catalog no. 100-20)(kept as 1  $\mu$ g/100  $\mu$ l stock in Milli-Q dH<sub>2</sub>O and stored at -20°C;
- p. Affinity purified anti-FLK-1 antiserum which can be obtained or purified as follows:
  - Prepare a Tresyl-Activated Agarose/Flk-1-D column by incubating 10 ml of Tresyl-Activated Agarose with 20 mg of purified GST-Flk-1-D fusion protein in 100mM sodium bicarbonate (pH 9.6) buffer overnight at 4oC.
  - 2. Wash the column once with PBS.
  - Block the excess sites on the column with
     M glycine for 2 hours at 4oC.
  - 4. Wash the column with PBS.
  - Incubate the column with Rabbit anti-Flk-1D production bleed for 2 hours at 4oC.
  - 6. Wash the column with PBS.
  - Elute antiserum with 100 mM Citric Acid, pH3.0 and neutralize the eluate immediately with 2 M Tris, pH 9.0.
  - 8. Dialyize the eluate against PBS overnight at 4oC with 3 changes of buffer (sample to buffer ratio is 1:100).
  - Adjust the dialyized antiserum to 5% glycerol and store at -800C in small aliquotes.

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- q. UB40 monoclonal antibody specific for phosphotyrosine, (see, Fendley, et al., 1990, Cancer Research 50:1550-1558);
- r. EIA grade Goat anti-mouse IgG-POD (BioRad catalog no. 172-1011);
  - s. 2,2-azino-bis(3-ethylbenz-thiazoline-6-sulfonic acid (ABTS) solution (100mM citric acid (anhydrous), 250 mM Na<sub>2</sub>HPO<sub>4</sub> (pH 4.0), 0.5 mg/ml ABTS (Sigma catalog no. A-1888)), solution should be stored in dark at 4°C until ready for use;
  - t.  $H_2O_2$  (30% solution) (Fisher catalog no. H325);
  - u. ABTS/H<sub>2</sub>O<sub>2</sub> (15ml ABTS solution, 2 µl H<sub>2</sub>O<sub>2</sub>) prepared 5 minutes before use and left at room temperature;
  - v. 0.2 M HCl stock in H2O;

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- w. dimethylsulfoxide (100%)(Sigma Catalog No. D-8418); and
- x. Trypsin-EDTA (Gibco BRL Catalog No. 25200-049).
  Protocol. The following protocol was used for conducting the assay:

- Coat Corning 96-well elisa plates with 1.0μg per well Cappel Anti-rabbit IgG antibody in 0.1M Na<sub>2</sub>CO<sub>3</sub> pH 9.6. Bring final volume to 150 μl per well. Coat plates overnight at 4°C. Plates can be kept up to two weeks when stored at 4°C.
- Grow cells in Growth media(DMEM, supplemental with 2.0mM L-Glutamine, 10% FBS) in suitable culture dishes until confluent at 37°C, 5% CO<sub>2</sub>.
- Harvest cells by trypsinization and seed in
   Corning 25850 polystyrene 96-well roundbottom cell plates,
   25.000 cells/well in 200µl of growth media.
  - Grow cells at least one day at 37°C, 5% CO<sub>2</sub>.
  - 5. Wash cells with D-PBS 1X.

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- 6. Add 200 $\mu$ l/well of starvation media (DMEM, 2.0mM 1-Glutamine, 0.1% FBS). Incubate overnight at 37°C, 5% CO<sub>2</sub>.
  - 7. Dilute Compounds/Extracts 1:20 in polypropylene 96 well plates using starvation media. Dilute dimethylsulfoxide 1:20 for use in control wells.
- 8. Remove starvation media from 96 well cell culture plates and add 162  $\mu l$  of fresh starvation media to each well.
- 9. Add  $18\mu l$  of 1:20 diluted Compound/Extract dilution (from step 7) to each well plus the 1:20 dimethylsulfoxide dilution to the control wells (+/-VEGF), for a final dilution of 1:200 after cell stimulation. Final dimethylsulfoxide is 0.5 %. Incubate the plate at  $37^{\circ}\text{C}$ , 5%  $CO_2$  for two hours.

- 10. Remove unbound antibody from ELISA plates by inverting plate to remove liquid. Wash 3 times with TBSW + 0.5% ethanolamine, pH 7.0. Pat the plate on a paper towel to remove excess liquid and bubbles.
- 11. Block plates with TBSW + 0.5% Ethanolamine, pH 7.0, 150 µl per well. Incubate plate thirty minutes while shaking on a microtiter plate shaker.

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- 12. Wash plate 3 times as described in step 10.
- 13. Add  $0.5\mu g/well$  affinity purified anti-FLU-1 polyclonal rabbit antiserum. Bring final volume to  $150\mu l/well$  with TBSW + 0.5% ethanolamine pH 7.0. Incubate plate for thirty minutes while shaking.
  - 14. Add 180  $\mu$ l starvation medium to the cells and stimulate cells with  $20\mu$ l/well 10.0mM sodium ortho vanadate and 500 ng/ml VEGF (resulting in a final concentration of 1.0mM sodium ortho vanadate and 50ng/ml VEGF per well) for eight minutes at 37°C, 5% CO<sub>2</sub>. Negative control wells receive only starvation medium.
- 15. After eight minutes, media should be removed from the cells and washed one time with 200µl/well PBS.
- 16. Lyse cells in  $150\mu l/well$  HNTG while shaking at room temperature for five minutes. HNTG formulation includes sodium ortho vanadate, sodium pyro phosphate and EDTA.
- 17. Wash ELISA plate three times as described in step 10.
- 18. Transfer cell lysates from the cell plate to elisa plate and incubate while shaking for two hours. To

transfer cell lysate pipette up and down while scrapping the wells.

- 19. Wash plate three times as described in step 10.
- 20. Incubate ELISA plate with 0.02μg/well UB40 in
- 5 TBSW + 05% ethanolamine. Bring final volume to  $150\,\mu\text{l/well}.$  Incubate while shaking for 30 minutes.
  - 21. Wash plate three times as described in step 10.
  - 22. Incubate ELISA plate with 1:10,000 diluted EIA grade goat anti-mouse IgG conjugated horseradish peroxidase in TBSW + 0.5% ethanolamine, pH 7.0. Bring final volume to  $150\mu l/well$ . Incubate while shaking for thirty minutes.
    - 23. Wash plate as described in step 10.
  - 24. Add 100  $\mu$ l of ABTS/ $H_2O_2$  solution to well. Incubate ten minutes while shaking.
    - 25. Add 100  $\mu l$  of 0.2 M HCl for 0.1 M HCl final to stop the color development reaction. Shake 1 minute at room temperature. Remove bubbles with slow stream of air and read the ELISA plate in an ELISA plate reader at 410 nm.

#### (ii) HER-2 ELISA

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HER-2 ELISA assays are described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

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#### (iii) PDGF-R ELISA

A PDGF-R ELISA is described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

(iv) IGF-I ELISA

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The IGF-I ELISA protocol described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al. may be used to measure phosphotyrosine level on IGF-I receptor, which indicates IGF-I receptor tyrosine kinase activity.

#### (v) EGF Receptor ELISA

EGF Receptor kinase activity (EGFR-NIH3T3 assay) in whole cells was measured as described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

#### (vi) Cellular Insulin Receptor ELISA

The protocol described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al. was used to determine whether the compounds of the present invention possessed insulin receptor tyrosine kinase activity.

#### (vii) EGFR ELISA ASSAY

Purpose

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To provide a consistent method for measuring the in vitro kinase activity of the EGFR in an Enzyme-linked immunosorbent assay (Elisa).

Scope. The following protocol describes the procedures used to analyze protein tyrosine kinase activity on the EGFR in an Elisa. The procedure also describes the protocol for the initial screening of drugs for inhibition or activation of protein tyrosine kinase activity.

Reagents and Supplies.

- Corning 96-well Elisa plates
   Corning Catalog #25805-96
- 15 2. 05-101 monoclonal anti-EGFR antibody (commercially available from UB1)

-80° C, 1 ml aliquots

PBS (Dulbecco's Phosphate-Buffered Saline)
 Gibco Catalog # 450-1300EB

Formulation: 2.7 mM KCL

1.1 mM KH2PO.

0.5 mM MgCl2 (anhydrous)

138 mM NaCl

8.1 mM Na2HPO4

4. TBST Buffer

Formulation: 50 mM Tris pH 7.2 150 mM NaCl 0.1% Triton X-100

5. Blocking Buffer Formulation: 5% Carnation Instant Milk in PBS

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6. A431 cell lysate

A431 cells are available from a variety of commercial sources and may be used lysed using conventional methods known to those skilled in the art or as described for lysis of the 3T3 cells in the EGF cellular assay described herein. -80° C, 1 ml aliquots

7. TBS Buffer

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#A-5394)

- 10 Formulation: 50 mM Tris pH 7.2
  - 8. TBS + 10% DMSO

Formulation: 10% DMSO in TBS Buffer (DMSO from Sigma, Catalog # D-2650)

9. ATP/MnCl, phosphorylation mix
Formulation: 0.03 mM ATP
(Adenosine-5'-triphosphate, Sigma Catalog

50 mM MnCl<sub>2</sub>

20 Make fresh in autoclaved Milli-Q H2O immediately before use

Keep on ice until use

- NUNC 96-well V bottom polypropylene plates Applied Scientific Catalog # AS-72092
- 25 11. EDTA

Formulation: 200 mM EDTA pH 8.0

12. Rabbit polyclonal anti-phosphotyrosine serum or UB40 monoclonal antibody specific for phosphotyrosine or

UBI's mab 4610, Upstate Biotechnology, Lake Placid, New York, Catalog # 05-321

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- 80° C, 1 ml aliquots

Thaw 1 ml vial and aliquot in smaller volumes to

5 store at - 80° C

 $\label{eq:Antiserum is stable for weeks when thawed and stored at 4 <math display="inline">\mbox{C}$ 

- Goat anti-rabbit IgG peroxidase conjugate
   Biosource Catalog # ALI0404
- 10 14. ABTS Solution

Formulation: 100 mM Citric Acid (anhydrous)
250 mM Na<sub>2</sub>HPO4 pH 4.0
0.5 mg/ml ABTS

(2,2'-azino-bis(3-ethylbenzthiazoline-6-sulfonic

15 acid)

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(Sigma Catalog # A-1888)

Keep solution in dark at 4 C until ready to use

15. Hydrogen peroxide 30% solution

Fisher Catalog # H325

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Store in the dark at 4 C until ready to use

16. ABTS/H<sub>2</sub>O<sub>2</sub>

Prepare

Formulation: 15 mls ABTS solution  $\mbox{2 ul } \mbox{ } \mbox{H}_2\mbox{O}_2$ 

minutes before use and room

25 temperature

17. 0.2 M HCL stock in  $\rm H_2O$ 

Procedure.

 Coat Corning 96-well elisa plates with 0.5 ug per well 05-101 antibody. 89 **227/111** Patent

Bring final volume to 100 ul per well with PBS. Coat plates overnight at  $4^{\circ}$  C.

- 2. Remove unbound 05-101 from wells by inverting plate to remove liquid.
- Wash 1x with distilled H2O by filling wells

  Pat the plate on a paper towel to remove excess
  liquid.
  - Block plates with 5% milk in PBS.
     150 ul per well.

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- Incubate plate 30 minutes while shaking on a microtiter plate shaker.
- 4. Wash plate 3x with dionized water, then once with TBST
- 5. Add 7 ug A431 cell lysate per well (EGFR source).

Add PBS to final volume of 100 ul per well Incubate 30 minutes while shaking.

- . Wash as described in step 4.
- At this point, drugs or extracts are added to the wells.

Dilute drugs/extracts 1:100 (unless specified otherwise) in TBS + 10% DMSO in 96-well polypropylene plates.

 $$\operatorname{\mathtt{Add}}$$  120 ul TBS to ELISA plate containing captured EGFR.

Add 13.5 ul diluted drugs/extracts to ELISA plate.

 $$\operatorname{\textsc{To}}$  control wells (wells which do not receive any drug) add 135 ul TBS

+ 1% DMSO.

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Incubate plate 30 minutes while shaking.

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8. Add 15 ul of 0.03 mM ATP + 50 mM  $MnCl_2$  phosphorylation mix directly to all wells except negative control well which does not receive  $ATP/MnCl_2$  (see diagram).

(150 ul final volume in well with 3 uM ATP/5 mM MnCl2 final concentration in well.)

Incubate 5 minutes while shaking vigorously.

\*NOTE: It is critical that ATP/MnCl2

phosphorylates the receptor for 5 minutes only. It is best to add the ATP/MnCl<sub>2</sub> with an 12 channel pipettor 1 row at a time leaving 20 seconds between each row so that the reaction may be stopped with EDTA exactly 5 minutes later (this depends on the number of plates being phosphorylated in one batch). Shake between each addition.

- 9. After 5 minutes, to stop reaction, add 16.5 ul of 200 mM EDTA pH 8.0 for 20 mM final in well, shaking continuously between each addition. This is done using the same timing method as above. After last row has received EDTA, shake plate an additional minute.
  - 10. Wash 4x with deionized water, twice with TBST.
- Add rabbit polyclonal anti-phosphotyrosine
   serum.

Dilute 1:3000 in TBST.

Add 100 ul per well.

Incubate 30-45 minutes while shaking.

12. Wash as described above in step 4.

Add BioSource anti-rabbit peroxidase conjugate antibody.

Dilute 1:2000 in TBST.

Add 100 ul per well.

Incubate 30 minutes while shaking.

- 14. Wash as described in step 4.
- 15. Add 100 ul of ABTS/H<sub>2</sub>O<sub>2</sub> solution to well. Incubate 5 to 10 minutes while shaking. Remove bubbles
- 16. If necessary stop reaction with the addition of 100ul of 0.2M HCl per well
  - 17. Read assay on Dynatech MR7000 elisa reader. Test Filter: 410 nM Reference Filter: 630 nM
  - (b) Cell Growth Assays

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The cell growth assays described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al. may be conducted to measure the effect of the claimed compounds upon cell growth as a result of the compound's interaction with one or more RTKs.

(vi) Assay Measuring Phosphorylating Function of Raf The following assay reports the amount of RAFcatalyzed phosphorylation of its target protein MEK as well as MEK's target MAPK. The RAF gene sequence is described in Bonner et al., 1985, Molec. Cell. Biol. 5: 1400-1407, and is readily accessible in multiple gene sequence data banks. Construction of the nucleic acid vector and cell lines utilized for this portion of the invention are fully described in Morrison et al., 1988, Proc. Natl. Acad. Sci. USA 85: 8855-8859.

### Materials and Reagents

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- Sf9 (Spodoptera frugiperda) cells; GIBCO-BRL, Gaithersburg, MD.
  - RIPA buffer: 20 mM Tris/HCl pH 7.4, 137 mM NaCl,
     10 % glycerol, 1 mM PMSF, 5 mg/L Aprotenin, 0.5 % Triton
     X-100;
  - 3. Thioredoxin-MEK fusion protein (T-MEK): T-MEK expression and purification by affinity chromatography were performed according to the manufacturer's procedures. Catalog# K 350-01 and R 350-40, Invitrogen Corp., San Diego, CA
  - 4. His-MAPK (ERK 2); His-tagged MAPK was expressed in XL1 Blue cells transformed with pUC18 vector encoding His-MAPK. His-MAPK was purified by Ni-affinity chromatography. Cat# 27-4949-01, Pharmacia, Alameda, CA
  - Sheep anti mouse IgG: Jackson laboratories, West
     Grove, PA Catalog, # 515-006-008, Lot# 28563
    - 6. RAF-1 protein kinase specific antibody: URP2653 from UBI.
    - 7. Coating buffer: PBS; phosphate buffered saline, GIBCO-BRL, Gaithersburg, MD
- 25 8. Wash buffer: TBST 50 mM Tris/HCL pH 7.2, 150 mM NaCl, 0.1 % Triton X-100
  - 9. Block buffer: TBST, 0.1 % ethanolamine pH 7.4
  - 10. DMSO, Sigma, St. Louis, MO

- 11. Kinase buffer (KB): 20 mM Hepes/HCl pH 7.2, 150 mM NaCl, 0.1 % Triton X-100, 1 mM PMSF, 5 mg/L Aprotenin, .75  $\mu$ M sodium ortho vanadate, 0.5 mM DTT and 10 mM MgCl<sub>2</sub>.
- 12. ATP mix: 100 mM MgCl<sub>2</sub>, 300  $\mu$ M ATP, 10  $\mu$ Ci  $\gamma$ -<sup>33</sup>P ATP (Dupont-NEN)/mL.
  - 13. Stop solution: 1 % phosphoric acid; Fisher, Fittsburgh, PA.
  - 14. Wallac Cellulose Phosphate Filter mats; Wallac, Turku, Finland.
  - 15. Filter wash solution: 1 % phosphoric acid, Fisher, Pittsburgh, PA.
    - 16. Tomtec plate harvester, Wallac, Turku, Finland.
  - 17. Wallac beta plate reader # 1205, Wallac, Turku, Finland.
  - 18. NUNC 96-well V bottom polypropylene plates for compounds Applied Scientific Catalog # AS-72092.

#### Procedure

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- All of the following steps are conducted at room temperature unless specifically indicated.
- 1. ELISA plate coating: ELISA wells are coated with 100  $\mu$ L of Sheep anti mouse affinity purified antiserum ( $1\mu$ g/100 $\mu$ L coating buffer) over night at 4 °C. ELISA plates can be used for two weeks when stored at 4 °C.
- 2. Invert the plate and remove liquid. Add 100  $\mu L$  of blocking solution and incubate for 30 min.
- Remove blocking solution and wash four times with wash buffer. Pat the plate on a paper towel to remove excess liquid.

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4. Add 1  $\mu g$  of purified Sumo 22 to each well and incubate for 1 hour. Wash as described in step 3.

5. Thaw lysates from RAS/RAF infected Sf9 cells and dilute with TBST to 10  $\mu$ g/100  $\mu$ L. Add 10  $\mu$ g of diluted lysate to the wells and incubate for 1 hour. Shake the plate during incubation. Negative controls receive no lysate. Lysates from RAS/RAF infected Sf9 insect cells are prepared after cells are infected with recombinant baculoviruses at a MOI of 5 for each virus, and harvested 48 hours later. The cells are washed once with PBS and lysed in RIPA buffer. Insoluble material is removed by centrifugation (5 min at 10 000 x g). Aliquots of lysates are frozen in dry ice/ethanol and stored at - 80 °C until use.

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- Remove non-bound material and wash as outlined above (step 3).
- 7. Add 2  $\mu g$  of T-MEK and 2  $\mu g$  of His-MAPK per well and adjust the volume to 40  $\mu L$  with kinase buffer.
- 8. Predilute compounds (stock solution 10 mg/mL DMSO) or extracts 20 fold in TBST plus 1% DMSO. Add 5  $\mu L$  of the prediluted compounds/extracts to the wells described in step 6. Incubate for 20 min. Controls receive no drug.
- 9. Start the kinase reaction by addition of 5  $\mu L$  ATP mix; Shake the plates on an ELISA plate shaker during incubation.
  - 10. Stop the kinase reaction after 60 min by addition of 30  $\mu \rm L$  stop solution to each well.

11. Place the phosphocellulose mat and the ELISA plate in the Tomtec plate harvestor. Harvest and wash the filter with the filter wash solution according to the manufacturers recommendation. Dry the filter mats. Seal the filter mats and place them in the holder. Insert the holder into radioactive detection apparatus and quantitate the radioactive phosphorous on the filter mats.

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Alternatively, 40  $\mu L$  aliquots from individual wells of the assay plate can be transferred to the corresponding positions on the phosphocellulose filter mat. After airdrying the filters, put the filters in a tray. Gently rock the tray, changing the wash solution at 15 min intervals for 1 hour. Air-dry the filter mats. Seal the filter mats and place them in a holder suitable for measuring the radioactive phosphorous in the samples. Insert the holder into a detection device and quantitate the radioactive phosphorous on the filter mats.

## (c) Toxicity and Animal Models

Measurement Of Cell Toxicity and In Vivo Animal Models are described in International Patent Publication No. WO 96/40116, published December 19, 1996 by Tang et al.

## (d) MET Biochemical Kinase Assay

A met biochemical kinase assay may be performed for met generally as described above for other kinases by substituting that or the other kinases. In particular, ELISA plates are coated with goat anti-rabbit Fc antibodies, which are used to capture commercially

Biotechnology) rabbit available (from Santa Cruz polyclonal antibodies to the cytoplasmic domain of human MET. Lysates are made from 293T cells that have been transiently transfected with a chimeric receptor composed of the extracellular domain of the EGFr and the transmembrane and cytoplasmic domain of the MET receptor, or from NCI-H441 cells (a human lung adenocarcinoma cell line) which express high endogenous levels of MET. chimeric receptors, or MET, from these lysates are captured on the antibody coated plates. After washing away extraneous proteins, test compounds are added and an in vitro kinase assay is performed by addition of an appropriate kinase buffer (containing ATP, divalent metal ions, etc.). Incorporation of phosphate into the captured receptors is detected with an anti-phosphotyrosine antibody conjugate with horse radish peroxidase using TMB as a substrate for colorimetric detection.

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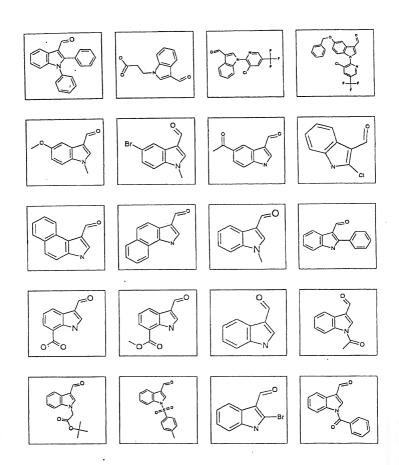
25

The present invention is not to be limited in scope by the exemplified embodiments which are intended as illustrations of single aspects of the invention. Indeed, various modifications of the invention in addition to those described herein will become apparent to those skilled in the art from the foregoing description and accompanying drawings. Such modifications are intended to fall within the scope of the appended claims.

All references cited herein are hereby incorporated by reference in their entirety.

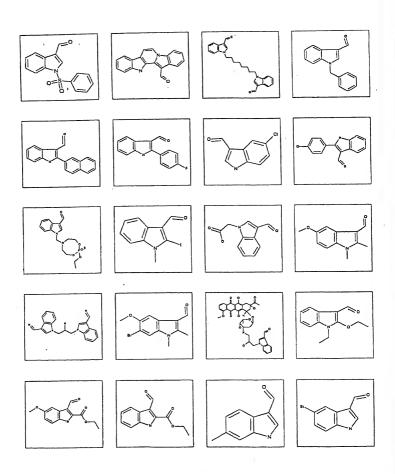
Other embodiments are within the following claims.

Table 1, Sheet 1 of 3



Page 1





Page 2

TABLE 2

	FLK Kinase IC50 (µM)	STRUCTURES
	0.7	H N
	7.7	J. No
•	2.5	N N N
	14	F NO
	13	T <sub>N</sub> C <sub>0</sub>

TABLE 3, SHEET 1 OF 3

NUMBER	ID   STRUCTURE
1	ind/ald-001
2	ind/ald-002
3	ind/ald-003
4	ind/ald-004
5	ind/ald-005
6	ind/ald-006
7	ind/ald-007
8	ind/ald-008
9	ind/ald-009
10.	ind/ald-010
11	ind/ald-011

TABLE 3, SHEET 2 OF 3

12	ind/ald-012
13	ind/ald-013
14	ind/ald-014
15	ind/ald-015
16	ind/ald-016
17	ind/ald-017
18	ind/ald-018
19	ind/ald-019
20	ind/ald-020
21	ind/ald-021
22	ind/ald-022
23	ind/ald-023

102 TABLE 3, SHEET 3 OF 3

24	ind/ald-024	H <sub>3</sub> C CH <sub>3</sub>
25	ind/ald-025	Q.

TABLE 4, SHEET 1 OF 3

MUMBER CORP ID STRUCTURE		STRUCTURE	
NUMBER CORP ID		н	
,1	oxindole-001	H N	
2 ,	oxindole-002	Br o	
3	oxindole-003	CI	
4	oxindole-004	H,C N	
5	oxindote-005	Çu.	
6	oxindole-006	N 0	
7	oxindole-007	CH <sup>3</sup> .	
8	oxindole-003	Br No	
9	oxindo!e-009	CI	
10	oxindole-010	FO	
11	oxindole-011	0=1	
		-	

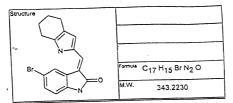
TABLE 4, SHEET 2 OF 3

12	oxindole-012	I O
13	oxindole-013	CIL
14	oxindole-014	H <sub>3</sub> C N
15	oxindole-015	Br CHs
16	oxindole-016	
17	oxindole-028	HO CH'
. 18	oxindole-036	H.N - 5 0
19	oxindole-037	H <sub>3</sub> C <sub>N</sub> S N
20	oxindole-038	
21	oxindole-039	O'S O
22	oxindole-040	F N
23	oxindole-041	

TABLE 4, SHEEr 3 OF 3

	24	oxindole-045
	25	oxindole-048
	26	oxindole-050
_	27	oxindole-054
	28	oxindole-056
	29	oxindole-057 H <sub>3</sub> C N
	30	oxindole-058 H <sub>3</sub> C
	31	oxindole-059
	32	oxindole-060
	33	oxiadole-061
	34	oxindole-062 H <sub>3</sub> C





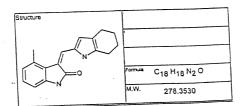
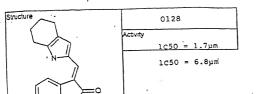


TABLE 6

FLK Kinase IC50 (μΜ)	STRUCTURES
1.2	
1.4	The state of the s
5	a Chi

TABLE 7



FLK Kinase PDGF Kinase

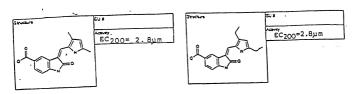
Structure		0129
	Activity	1050 =
N		1C50 =
Br	1	

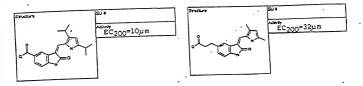
FLK Kinase PDGF Kinase

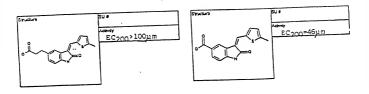
19.6µm

m48.0

TABLE 8







#### TABLE 9 (SHEET 1 OF 5)

3-[(pyrrol-2-yl))methylidenyl]-5-sulfonyl-2-indolinone
3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-sulfonyl-2-indolinone
3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-sulfonyl-2-indolinone
3-[(2-methylthien-5-yl)methylidenyl]-5-sulfonyl-2-indolinone
3-[(3-methylthien-2-yl)methylidenyl]-5-sulfonyl-2-indolinone
3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-sulfonyl-2-indolinone

3-[(pyrrol-2-yl)methylidenyl]-5-aminosulfonyl-2-indolinone
3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-aminosulfonyl-2-indolinone
3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-aminosulfonyl-2-indolinone
3-[(2-methylthion-5-yl)methylidenyl]-5-aminosulfonyl-2-indolinone
3-[(3-methylthion-2-yl)methylidenyl]-5-aminosulfonyl-2-indolinone
3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-aminosulfonyl-2-indolinone

3-[(pyrrol-2-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone
3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone
3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone
3-[(2-methylthien-5-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone
3-[(3-methylthien-2-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone
3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-methoxycarbonyl-2-indolinone

25 3-[(pyrrol-2-yl)methylidenyl]-5-diethanolamino-2-indolinone
3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-diethanolamino-2-indolinone
3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-diethanolamino-2-indolinone
3-[(2-methylthien-5-yl)methylidenyl]-5-diethanolamino-2-indolinone
3-[(3-methylthien-2-yl)methylidenyl]-5-diethanolamino-2-indolinone
3 0 3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-diethanolamino-2-indolinone

3-[(pyrrol-2-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2-indolinone

#### TABLE 9 (SHEET 2 OF 5)

- 5 3-[(2;4-dimethylpyrrol-5-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2-indolinone
  3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2indolinone
  3-[(2-methylthien-5-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2-indolinone
  3-[(3-methylthien-2-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2-indolinone
  10 3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-(2,3-dihydroxypropylamino)-2-
- 3-[(pyrrol-2-yl)methylidenyl]-5-ureido-2-indolinone
  3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-ureido-2-indolinone
  3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-ureido-2-indolinone
  3-[(2-methylthien-5-yl)methylidenyl]-5-ureido-2-indolinone
  3-[(3-methylthien-2-yl)methylidenyl]-5-ureido-2-indolinone
  3-[(4,5,6,7-letrahydroindol-3-yl)methylidenyl]-5-ureido-2-indolinone
- 3-{(pyrrol-2-yl)methylidenyl]-5-guanidino-2-indolinone
  3-{(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-guanidino-2-indolinone
  3-{(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-guanidino-2-indolinone
  3-{(2-methylthien-5-yl)methylidenyl]-5-guanidino-2-indolinone
  3-{(3-methylthien-2-yl)methylidenyl]-5-guanidino-2-indolinone
  3-{(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-guanidino-2-indolinone
  - 3-{(pyrrol-2-y1)methylidenyl]-5-glyceroylamido-2-indolinone
    3-{(2,4-dimethylpyrrol-5-y1)methylidenyl]-5-glyceroylamido-2-indolinone
    3-{(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-y1)methylidenyl]-5-glyceroylamido-2-indolinone
    3-{(2-methylthien-5-y1)methylidenyl]-5-glyceroylamido-2-indolinone
    3-{(3-methylthien-2-y1)methylidenyl]-5-glyceroylamido-2-indolinone
    - 3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-glyceroylamido-2-indolinone

#### TABLE 9 (SHEET 3 OF 5)

5	3-{(pyrrol-2-yl)methylidenyl]-5-{(3-piperidinyl)propanoylamino]-2-indolinone
	3-{(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-{(3-piperidinyl)propanoylamino]-2-indolinone
	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-[(3-pipendinyl)propanoylamino]-2-
	indolinone  3-{(2-methylthien-5-yl)methylidenyl]-5-{(3-piperidinyl)propanoylamino]-2-indolinone
	3-[(2-methylthien-5-yl)methylidenyl]-5-[(3-piperidinyl)propanoylamino]-2-indolinone
10	3-[(3-methylthien-2-yi)methylidenyi]-5-[(3-piperidinyi)propanoylamino]-2-indolinone 3-[(4,5,6,7-tetrahydroindol-3-yi)methylidenyi]-5-[(3-piperidinyi)propanoylamino]-2-indolinone
	3-[(4,5,6,7-tetranydroindol-3-yr)methylidettyn-3-((3-piperiolityn)proportoly.a.m
	3-[(pyrrol-2-yl)methylidenyl]-5-mesylamino-2-indolinone
	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-mesylamino-2-indolinone
15	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-mesylamino-2-indolinone
13	3-[(2-methylthien-5-yl)methylidenyl]-5-mesylamino-2-indolinone
	3-[(3-methyllhien-2-yl)methylidenyl]-5-mesylamino-2-indolinone
	3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-mesylamino-2-indolinone
20	3-{(pyrrol-2-yI)methylidenyI]-5-glycoloyloxy-2-indolinone
	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-glycoloyloxy-2-indolinone
	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-glycoloyloxy-2-indolinone
	3-[(2-methylthien-5-yl)methylidenyl]-5-glycoloyloxy-2-indolinone
	3-[(3-methylthien-2-yl)methylidenyl]-5-glycoloyloxy-2-indolinone
25	3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-glycoloyloxy-2-Indolinone
25	3-[[4,0]0,7-(01,011)01.001.
	3-[(pyrrol-2-yl)methylidenyl]-5-(2,3-dihydroxypropoxy)-2-indolinone
	3.1/2 4dimethyloyrrgl-5-yl\methylidenyl]-5-(2,3-dihydroxypropoxy)-2-indolinone
	3-{(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-{2,3-dihydroxypropoxy}-2-indoline
30	· e
50.	3-[(2-methylthien-5-yl)methylidenyl]-5-(2,3-dihydroxypropoxy)-2-indolinone

 $3\hbox{-}[(3\hbox{-methylthien-2-yl})\hbox{methylidenyl}]\hbox{-}5\hbox{-}(2,3\hbox{-}dihydroxypropoxy)\hbox{-}2\hbox{-}indolinone$ 

#### TABLE 9 (SHEET 4 OF 5)

3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-(2,3-dihydroxypropoxy)-2-indolinone

5 3-{(pyrrol-2-yl)methylidenyl}-5-aminomethyl-2-indolinone

10

3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-aminomethyl-2-indolinone

3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-aminomethyl-2-indolinone

3-[(2-methylthien-5-yl)methylidenyl]-5-aminomethyl-2-indolinone

3-[(3-methylthien-2-yl)methylidenyl]-5-aminomethyl-2-indolinone

3-{(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-aminomethyl-2-indolinone

3-[(pyrrol-2-yl)methylidenyl]-5-amidino-2-indolinone

3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-amidino-2-indolinone

3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-amidino-2-indolinone

3-[(2-methylthien-5-yl)methylidenyl]-5-amidino-2-indólinone

3-[(3-methylthien-2-yl)methylidenyl]-5-amidino-2-indolinone

3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-amidino-2-indolinone

20 3-[(pyrrol-2-yl)methylidenyl]-5-hydroxymethyl-2-indolinone

3-[(2,4-dimethylpyrrol-5-yl)methylidenyl] 5-hydroxymethyl-2-indolinone

3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl- 5-hydroxymethyl-2-indolinone

3-[(2-methylthien-5-yl)methylidenyl]-5-hydroxymethyl-2-indolinone

3-[(3-methylthien-2-yl)methylidenyl]-5-hydroxymethyl-2-indolinone

25 3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-hydroxymethyl-2-indolinone

3-{(pyrrol-2-yl)methylidanyl]-5-phosphonooxy-2-indolinone

3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-phosphonooxy-2-indolinone

3-{(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-phosphonooxy-2-indolinone

30 3-[(2-methylthien-5-yl)methylidenyl]-5-phosphonooxy-2-indolinone

3-[(3-methylthien-2-yl)methylidenyl]-5-phosphonooxy-2-indolinone

3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-phosphonooxy-2-Indolinone

#### TABLE 9 (SHEET 5 OF 5)

5	3-[(pyrrol-2-yl)methylidenyl]-5-ethoxycarbonyl-2-indolinone
	3-{(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-ethoxycarbonyl-2-Indolinone 3-{(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-ethoxycarbonyl-2-indolinone
	3-[(2,4-dimethyl-3-ethoxycarbonylpyriol-3-yr)methylicethyl-3-ethoxycarbonyl-3-indolinone
	3-[(2-methylthien-5-yl)methylidenyl]-5-ethoxycarbonyl-2-indolinone
	3-[(3-methylthien-2-yl)methylidenyl]-5-ethoxycarbonyl-2-indolinone
10	3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-ethoxycarbonyl-2-indolinone
	3-[(pyrrol-2-yl)methylidenyl]-5-benzyloxycarbonyl-2-indolinone
	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-benzyloxycarbonyl-2-indolinone
	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-benzyloxycarbonyl-2-indolinone
15	3-[(2-methylthien-5-y1)methylidenyl]-5-benzyloxycarbonyl-2-indolinone 5-benzyloxycarbonyl-2-indolinone
	3-[(3-methylthien-2-yl)methylidenyl]-5-benzyloxycarbonyl-2-indolinone
	3-[(3-files)]-1
20	3-[(pyrrol-2-yl)məthylidenyl]-5-phenylaminocarbonyl-2-indolinona
20	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-phenylaminocarbonyl-2-indolinone
	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-phenylaminocarbonyl-2-indolinone
	3-[(2-methylthien-5-yl)methylidenyl]-5-phenylaminocarbonyl-2-indolinone
	3-[(3-methylthien-2-yl)methylidenyl]-5-phenylaminocarbonyl-2-indolinone
25	3-[(4,5,6,7-tetrahydroindol-3-yi)methylidenyl]-5-phenylaminocarbonyl-2-indolinone
	3-[(pyrrol-2-yl)methylidenyl]-5-benzylaminocarbonyl-2-indolinone
	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-benzylaminocarbonyl-2-indolinone

3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyl]-5-benzylaminccarbonyl-2-indolinone
3-[(2-methylthien-5-yl)methylidenyl]-5-benzylaminocarbonyl-2-indolinone
3-[(3-methylthien-2-yl)methylidenyl]-5-benzylaminocarbonyl-2-indolinone
3-[(4,5,6,7-tetrahydroindol-3-yl)methylidenyl]-5-benzylaminocarbonyl-2-indolinone

TABLE 10 SHEET 1 OF 5

	270110771555	METHOD
FLK	STRUCTURES	METHOD
Kinase		0
1C50		
(μM)		
1.6	H	A
	a	"
	√ <sub>N</sub> ~o	
2.6	H	A
	N	1 ~
	1677	
	N 0.	+
1.9	H Br Br	В
	N N	
	W/N/O	
4.7	, 2,	В
		`
	TT, "	
5.6	9	оВ
1.		4 - 1
	TI, "	
10.8	9	о В
·-	1 7	٩
1		
	1000	<del></del>
12.5		-o \· A
		`
J		
1	0 N 0	

TABLE 10 SHEET 2 OF 5

	0		
0.97		В -	
1.5	N N N	В	
1.1	N N N	В .	
3.5	H	A	
7.3	The state of the s	<b>A</b>	
5.6	N N N	В .	
8.1	The state of the s	. A	
17.3	The N	A	-
	7.3 7.3 5.6	1.5	1.5

## TABLE 10 SHEET 3 OF 5

2.9	70	В	
5.2	CI NO Br	В	
18.5	a H Bi	· B	
8.8	Br O O	В	
4	C'NCO CM	В	*
8	L'no en	В	
11.5	0000	В	
13.7	"Chilo	В	

### TABLE 10 SHEET 4 OF 5

		-1
10.4		В
10.7	0-10-0	В
16.4		• B
19.9	di to	В
9.7	J. 0	В
20.3	THE CO	В
4.6	H	В
5.6	a   N   N	B

TABLE 10 SHEET 5 OF 5

9.9	0,00	A	
12.3		В	
18.4		В	
5.8	مر مر م	В .	
6.2	0,000	A	
17.1		В . :	
			1

Table 11

5-aminooxindole	5-bromooxindale	5-chloroxindale
axindale-001	cxindale-002	oxindole-003
4,5-dimethyloxindcle	5,3-dimethoxyoxindole	oxindde
oxindole-004	oxincole-005	cxindole-006
		*
4-methyloxindole	5,7-dibromooxindole	7-bromo-5-chleroexindale
oxindcle-007	oxindale-608	e00-slobnixo
5-flucrooxindale	5-nitrooxindole	5-icdoaxindole
oxindole-010	axindole-011	cxindale-012
5-chloro-7-methyloxindole	5-methyloxindale	5-bromo-4-methyloxindo
oxindale-013	oxindale-014	oxindole-015
7-fluorooxindole	7-chloroaxindole	4-fluoraoxindole
oxindole-016	oxindale-017	oxindale-018

## Table 11 (continued)

6-fluorooxindale	4-chlorooxindole	8-chlorcoxindale
axindale-019	cxindale-020	cxindole-021
5-broma-7-mathylaxindale	7-chloro-5-cyanooxindole	4-bromooxindole
oxindcle-022	oxinoole-023	oxindole-024
7-methoxyoxindale	4-methyl-S-carboxyoxindole	4-methyl-5-carboxymethyloxin le
oxindale-025	oxIncale-026	cxindale-027
		_
-methyl-5-carboxyethyloxindole	4-methyl-5-(3-carboxy-n-propyl) axindole	4-methyl-5-hydroxymethyloxid le
oxindole-028	oxindole-029	oxindole-030
 4-methyl-5-methoxymethyloxind	4-methyl-S-(2-hydroxyethyl)oxin dole	4-methyl-5-(2-methoxyethyl) dole
ole		

4-methyl-5-(3-hydroxy-n-propyl) oxindole

oxindale-034

4-methyl-5-(3-methoxy-n-propyl) oxindole

oxindale-035

5-aminosulfonyloxindole

oxindole-036

Table 11 (continued

5-methylaminosulfonyloxindole	5-(4-trifluoromethylanilinosulfony )oxindole	5-(memoclin-1-yl-sulfanyl)axind ale
oxindole-037	oxindole-038	cxindole-039
6-trifluoromethyloxindole	5-(2-chlorcethyl)oxindole	5-cartoxymethyloxindole
oxindale-040	cxindole-041	oxindole-042
5-carboxymelhyloxindole	4-methoxycarbonyloxindole	5-methoxycarbonyloxindcle
oxIndcle-043	oxindale-044	oxindole-045
	•	
6-methoxycarbonyloxindole	4-carboxyoxindole	5-carboxyoxindcle
oxindale-046	oxincole-047	oxindole-048
6-carboxyoxindole	5-carboxyethyloxindole	5-hydroxyethyloxindole
. oxindde-049	axindale-050	oxindale-051
4-methyl-5-aminooxindole	4-methyl-5-nitrooxindale	4-methyl-5-iodooxindole

oxindole-053

oxindole-052

oxindole-054

### Table 11 (continued)

4-methyl-5-chlorooxindole

oxindole-055

Table 12

2-ethoxytenzaldehyce	2-thiopnenecarboxaldehyde	1-memylpymole-2-carboxaldehy de
CHO-G01	CHO-002	C+O-103
4-fluorobenzaldenyde	Indicie-3-carboxaldenyde	5-memyithiophene-2-carboxald hyde
CHC-604	CHO-005	CHO-006
4-oromobenzaldehyde	pyrrole-2-carboxaldehyde	2-Hydroxy-o-memoxycenzaide yde
CHC-307	CHO-008	C::(O-009
CHO-010	CHO-011	CHO-012
3-Bromo-2-nydroxy-5-metroxyo enzaldehyde	1-Hydroxy-2-naphthaldenyde	Eury-Z(estoxycs/bonyi)-4-(eur ycarbonylmetryi)-5-formyi-3-p biaproblonate
СНО-013	CHO-014	CHO-015
Ethyl-5-tormyl-2-methyl-3-iuranc arboxylate	4-Formyl-3-metroycarbonymetri yl-5-me-1H-pyrrole-2-carboxylic acid metryl estar	2-Hydroxy-3-nitrobenzaldehy
СНО-016	CHO-017	CHO-018
2,4-Dinyaroxy-3-metryibenzaide hyde	Methyl5-formyl-4-methy-3-pyrrol epropionate	2-furaldehyde
CHO-019	CHO-020	CHO-021
5-Nitro-2-furaldehyde	4-Ethoxy-3-methoxycenzaldeny de	3,4-Dihydroxybenzaldehyd
CHO-022	CHO-023	CHO-024

### Table 12 (continued)

2,4-Oime:hoxybenzaldehyda	3.5-Uimethyn-1-ethyl-2-pyrroicza boxaldenyde	2.4.6-Inmethoxyberzaldehyde
СНО-025	CHC-728	CHO-027
4-Hydroxydenzalderryde	+(Dimetrylamino)-cerczaicenyd e	2.4-Chmetryi-3-carcemoxypyrrol e-5-carcoxaldehyde
CHO-028	CHO-029 .	CHO-030
2-cnloro-4-fluorobenzaldenyde	3-Nitroberzakietryde	4-riuore-2-(Influoromethyr) denz aldetryde
CHC-031	СНО-932	CHO-033
2,4,6-Trifluorcbenzaldenyde	4-nyoroxy-2-methoxypenzaiden yde	3.4-Cimetroxybertzaldehyde
CHO-034	CHO-035	CHO-035
Salicylaidehyde	Benzaldehyde	3,5-dlethylpyrrole-2-carboxaldeh yde
СНО-037	CHO-038	CHO-036
5-(Methyritrio)thiopnene-2-carco xaldehyde	2.4-Dinycroxy-ö-metryibenzaice hyde	Meinyi-5-ionnyl-4-meinyi-3-pyrr olepropionata
CHO-039	CHO-040	СНО-041
3-Ethoxy-4-hydroxybenzaicenyd e	2-Hyaraxy-5-methoxybenzziaen yde	2-Imidazolecarboxaklehyde
CHO-042	CHO-043	CHO-044
1-Methyl-2-formylbenzimidazole	4-Chloro-1-meinylpyrazole-3-car boxaldehyde	2,3-dimethyl-5-formylthiophene
. CHO-045	CHO-045	CHO-047

Table 12 (continued)

rormyl-4,5,8,7-tetranyaroinaci	3-Chiorometryi-5-nitrosalicylaid enyde	1-(3,3-Uscalcrochenyi)pyrrole-2- carboxaldehyde
СНО-048	CHO-349	CHO-050
-Chiorothicpnene-2-carocxaice yde	3,5-aimethyt-5-formylpyrrale	Figuria nyaraxycenza aenya e
CHC-051	CHO-052	C4C-053
	3,5-Di-tert-outyi-4-nydroxycenza Idenyde hemifydrate	3 Guryi
CHO-054	CHO-055	CHO-056
2,4,3-Trihydroxybenzaldehyde	2-lamyl-5-nitrothlochene	4-Carbor/benzaldehyde
CHO-057	CHO-058	CHO-059
2,4-diflucrobenzaldehyde	3,5-Dime:nyi-Lnydroxyoenzaide hyde	3-Cricronyoroxy-5-t-outyrben zaldehyde
CHO-0e0	CHO-061	CHO-062
4-Einoxy-3-methoxybenzaideny	2-Nitroth epnene 4-carboxalden yde	4(Dibutylamino)benzaklehyde
СНО:063	CHO-064	CHO-065
4-(Tातीucromethyl)oenzaldehyde	4,6-Olmethoxy-salicylaldehyde	2,3,4-Trihydroxybenzaldehyde
CHO-666	CHO-067	CHO-C68
2-Hydroxy-3-methoxycenzaiden yde	5-Bromo-3,4-dihydroxyoenzalde hyde	3,4-Diaceloxybenzaldehyde
CHO-069	сно-070 .	CHO-071

Table 12 (continued)

Hycroxy-1-memylbenzaldenyd	2-Bromoberizaldehyde	2,4-Cihydroxycenzaldenyda
CH0-072	СНО-073	CHO-074
-hydroxy-4-methoxydenzalden de	3-Bromobertzaidehyde	3.5-Ui-leri-cutyi-2-nyaraxyoeriza Idenyde
. сно-075	CHO-076	CHC-1777
4-Carboxybenzaldehyde	4-Ulmethylamino-1-naprithalden yde	4-Hydroxy-3-retrobenzaldehyde
CHO-078	CHO-079 .	CHO-080
Z-Hydroxy-4-meinoxybenzaiden yde	3-Hydroxy-4-nitrobenzaldahyde	4-Bromobenzaldehyde
CHO-031	CHO-082	CHO-083
2.3,5,7-Tetrahydro-5-hydroxy-1 H,5H-benzo(j]quinolizine.9 carboxaldehyde	3,5-Uiisopropyi-4-nyaroxyoenzai dehyde	Benzo(b furan-2-carboxaldehyd
CHQ-084	CHO-085	CHO-036
3,5-Oliodo-4-methyl-2-pyriclecan boxaldehyde	1-(4-cnioropnenyi)pyrrole-2-caro oxaldehyde	5-Ethyl-2-furaidehyde
CHO-087	ÇHO-088	CHO-089
3,4-Dimetryithieno(bjmiopriene- 2-carboxaldehyde	3-Bromounicpnene-2-carooxalde hyde	6-3romo-2-hydroxy-3-methoxy enzaldehyde
CHO-090	СНО-091	CHO-092
5-Methylfurfural	3-Methyl-1H-Pyrazole-5-carboxa idehyde	5-loco-2-furaldehyde
1		

CHO-094

. CHO-033

CHO-095

Table 12 (continued)

6-Metnoxy-4-methytsalicytaiden	Etnyi 2,4-Olmethyl-5-formy-3-pyrrolec	lecarocxylk acid
/de	arboxylate	
CHC-096	CHO-097	CHO-098
Etnyi-a-tormy-1,2,4-tometryl-3-ç ymolecarboxylate	a-(4-Formylpiperazine-1-yi)berz aldehyda	zaldenyde - zaldenyde
CHO-099	CHO-100	CHO-101
5-Chioro-3-memoxycaroonyi-4- methoxycarbonylmethyl-pyrrole-	17.4-chloropenzyl) 4-chcmo-pyra zcle-5-carboxaldehyde	Imicazcie 4 caroxakienyde
2-carboxaldehyde CHC-102	CHO-103	CHO-104
		5-1-dury-inycroxy-3-rodocenzal
4-Chioro-pyrazole-5-carcoxalde hyde	5-Erioxycaroonyl-4-metryl-3-me chylcarbonyl-pyrrcle-2-carboxald enyde	dehyde
CHO-105	CHO-106	CHO-107
5-Bromofuran-2-carboxaldehyde	1,4-Dimethyl-3-formylcarbazole	1.4-Dinycroxy-2-rormyF3.6.7,8-1 etranycronaphthalene
CHO-108	CHO-109	CHO-110
S-fluorisatin	3,4-dimethyl-2-formylpymole	isatin
СНÖ-111	CHO-112	CHO-113
CHO-111		
5-ethyl-2-formyllhiophene	4-methoxytenzaldehyde	4-diethylaminoberzaldehyda
CHO-114	CHO-115	CHO-116
3,5-cietnyipyrrole-2-carooxalden	5-Benzyloxyindole-3-carboxalde hyde	3-Bromo-5-chiero-2-hydroxyb zaldehyde
CHO-117	CHO-118	CHO-119

Table 12 (continued)

-cniorcpnenyithiojcenzaigen	6-Chloropiperonal	Chromone-3-carboxaldehyde
СНО-120	CHO-121	CHO-122
3-Cyanobenzaldenyde	4–Cyanobenzaldehyda	5,3-Victicroctromone-3-carbo
CHO-123	CHO-124	CHO-125
2,5-cihycroxybenzaidenyde	2.3-Dimethoxyberzaldehyde	2,4-Dimethoxycerzaldehyde
CHO-126	CHO-127	CHO-123
2,5-Cimethoxybertzaldehyde	2.5-Olmethoxybenzaldehyde,	3,5-Oimethoxybenzaldehyd
CHO-129	CHO-130	CHO-131
-Dimethylamino-2-methoxyben aldehyde	3,4-Dimethylbenzaklehyde	5,7-Dimetry/chremone-3-czr/ aldehyde
СНО-132	CHO-133	CHO-134
S-Ethylfurfural	Ferrocenecarboxaldehyde	Flucrene-2-cartoxalderryd
CHO-135	CHO-138	CHO-137
2-Fluoro-3-(iniluoromathyl)cenz aldehyde	2-Fluoro-4-(timuoromethyr)cenz aldehyde	2-Fluoro-5-(Iniluoromethyi): aldehyda
CHO-138	CHO-139	CHO-140
2-Fluoro-6-(innuoromethyl)benz aldehyde	2-Formylphenoxyacedc acid	3-Metroxy-5,-metrylenedio nzaldehyde
CHO-141	CHQ-142	CHO-143

Table 12 (continued)

Methoxy-1-naphthaldehyde	4-Methoxy-1-nachthaldehyde	4-(Methysthio)beruzaldehyde
CHC-144	CHQ-145	CHO-146
Methyrthiochene-2-carboxalde de	5-Vernyitriopnene-2-carboxaice hyde	pentametrylbenzaldehyde
CHO-147	CHQ-143	CHO-149
3-Phenoxybenzaidehyce	Pyridine-2-carboxaidehyde	Pyridine-3-carooxaldehyde
CHO-150	CHO-151	CHO-132 ·
Pyridine-4-carboxaldehyde	4-Pyriclicincoenzaidenydd, 98+%	1,2,3,6-Tetrahydrobenzaldehyd
CHO-153	CHO-154	СНО-155
1.		
2,3,4-Trimethoxybenzaldehyde	2,4,5-Trimethoxyberuzakiehyde	2,4,6-Trimethoxybenzaldehyd
CHO-156	CHO-157	CHO-158
	T-Acetyi-3-indolecarboxalcenyd	6-Chloro-3-formylchramone
3,4,5-Trimethoxyberzsidehyde	8	group to the property
СНО-159	CHO-160	CHO-161
		Z-Chicro-3-quinorinecartoxale
6-Chioro-3-tormyl-7-metrylchro mone	5-(2-Chlorophenyl)furfural	yde
CHO-162	CHO-163	CHO-164
	2,5-Dimethoxy-3-tetranydrofurac	4,5-Dimetryl-2-furaldehyd
6,8-Dibramo-3-formylchromane	arboxaldehyde	-,0
CHO-165	CHO-166	CHO-167

Table 12 (continued)

9-cinyi-3-carpazdecarcoxalden	2-Formyi-6,7-clmethylchromone	3-fermyl-5.3-dimetrylchromane
CHO-168	CHO-163	CHO-170
	3-formyl-6-methylchromone	3-formy+6-ndroci-romone
3-formyl-6-isopropylchronone	3-tomyl-6-methylanema.c	CHO-173
CHC-171	CHO-172	CHO-11/3
5-Formyluracil	5-Methoxythoole-3-carpoxalden yde	1-Methylisztin
CHC-174	CHO-175	CHO-176
5-(2-Nitrophanyi)furfural	(S)-(-)-Perillaldehyde	2-Trifluorosceryi)thiopinene
CHO-177	CHO-178	CHO-179
3,5-qiisopropyi-4-metroxybenzai dehyde	4-oenzyloxy-3,5-ciisopropyloenz aldehyde	3-i-cuty+4-metroxycertalicenyd
CHO-180	СНО-181	CHO-182
4-cenzyloxy-3-t-cutylbenzaldeny de	3-bromo-5-t-butyl-4-methoxyben zaldehyde	2-oenzyicxy-3-bromo-5-Houryibe nzaldehyde
CHQ-183	CHO-184	CHO-185
3-t-butyi-5-cnioro-4-methoxycen zaldehyda	a-cenzyloxy-34-butyl-5-chidrobe rizaldehyde	34-out/F5-loco-4-methoxybertza (dehyde
CHO-186	CHO-187	CHO-188
4-benzyloxy-3-t-butyl-5-locoben zaldehyde	3-I-butyl-4-meinoxy-5-nitrocenza Idehyde	4-benzyloxy-34-buyl-5-noroben zaldehyde
CHO-189	CHO-190 ·	CHO-191

Table 12 (continued)

	4-oenzyloxy-J.3-ci-(-cutylbenzal	J.S-cimetnyi-4-me:noxycenzaid
, 3-ai-l-outyi-4-methoxycenzata	cetryde	enyde
CHO-192	СНО-193	CHO-194
0.10 110		
oenzylaxy-3,5-aimethyloenzai denyde	5-oromo-2-nycroxy-3-methoxy-0 enzaldehyde	5-bromosziic/aldenyce 201
CHO-195	CHO-196	CHO-197
2-hydroxy-5-nibooenzaldehyde	+nyoroxy-2-ntro-J-mcthoxype nzaldehyde	3-actoxysallcyaldehyde
CHO-198	CHC-199	CHO-200
3,5-dichlorosalicy/aidehyde	5-chlorosalicyaldehyde	4-(diethylamino)salicyaldehyde
СНО-201	СНО-202	. Сно-203
5-(inituorome:hoxy)saticylatoehy de	3,5-dibromosalicyaldehyde	3-flucrosalicyaldehyde
CHO-204	CHO-205	CHO-206
3-oromo-4-nydroxybenzaidenyd	5-chlorosalicyaldehydə	2-4,dimetryl-5-farmylpyrrole
CHO-207	CHO-208	CHO-209
3,5-diisopropyl-2-farmylpyrrole	3,5-dimethylthlophene-2-carbox aldehyde	3-metryl-5-etrylthiophene-2-ca boxaldehyde
CHO-210	CHO-211	CHO-212
3-methyl-5-isopropylthiophene-2	3-methyl-5-cyclopentylmethylthi ophene-2-carboxaldehyde	3-methyl-5-cyclopropytthiophe -2-carboxaldehyde
CHO-213	CHO-214	CHO-215

# Table 12 (continued)

nethyl-3-20 yld lloghida	4-methyl-S-isopropylthicpnene-2 -carboxaldehyde	4-methyl-5-cyclopertylmethytthi ophene-2-carboxaldehyde
xaldenyde CHC-216	CHO-217	CHO-218
,		
methyl-5-cyclopropylmethylthi chene-2-carboxaldehyde	5-isopropylthiophene-2-carboxal dehyde	5-shenylmethylthiophene-2-carb exaldehyde
CHC-219	. СНО-220	CHO-221
-cyclchexylmethylthlophene-2- arboxaldehyde	5-cyclohexyithicphene-2-carticx aldehyde	5-phenyithlophene-2-carboxald hyde
CHC-222	CHO-223	CHO-224 .
	:	4-methyl-5-propylithiophene-2-
3-methyl-5-propylthicphene-2-ca boxaldehyde	3-methyl-5-cyclohexylmethylthio phene-2-carboxaldehyde	rboxaldehyde .
CHO-225	CHO-225	CHO-227
4-methyl-5-cyclohexyimethylthlo	5-n-butytthiophene-2-carboxalde	5-cyclopropylmethylthiophene carboxaldehyde
phene-2-carboxaldehyde	hyde	
CHO-228	CHO-229	CHO-230
	3-methyl-5-phenylmethylthiophe	4-methyl-5-phenylmethylthio
5-cyclopropylthiophene-2-carbo xaldehyde	ne-2-carboxaldehyde	ne-2-carboxaldehyde
CHO-231	CHO-232	CHO-233
		4,5-dimethyithicphene-2-ca
5-cyclopentylmethylthicphene-2- carboxaldehyde	5-cyclopentylthiophene-2-carbox aldehyde	aldehyde
CHO-234	CHO-235	CHO-236

CHO-237

134 Table 13

	MASTER	PLATE	PLATE	
	BARCODE	ROW	COLUMN	NAME
				1
	10717	A	2	3-(2-ethoxybenzylidenyl)-5,7-dibromo-2-indolinone
	1	1	1	, , , i. cisionio 2-midolinione
	10717	- A		
	10717	^	3	3-[(thien-2-yl)methylidenyl]-5,7-dibromo-2-
	1			indolinone
	10717	A	4	3-I(1-methylpyrrol 2 ulber atti
	l			3-[(1-methylpyrrol-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
	10717	Α	5	3-(4-fluorobenzylidenyl)-5,7-dibromo-2-indolinone
	1			y y -iv distrinte-2-indollitorie
	10717	A		
	1 .07.17	^	6	3-[(indol-3-yl)methylidenyl]-5,7-dibromo-2-
				indolinone
	10717	A	7	3-1/2-methylthian 5 -1/2
		- 1		3-[(2-methylthien-5-yl)methylidenyl]-5,7-dibromo-2-indolinone
			1	somione
	10717	A	8	3-(4-bromobenzylidenyl)-5,7-dibromo-2-indolinone
į		1	1	· · · · · · · · · · · · · · · · · · ·
1	10717	-A-		
1	.07.17	^	9	3-[(pyrrol-2-yl)methylidenyl]-5,7-dibromo-2-
1	1	- 1	- 1	indolinone
I	10717	A	10	3-(2-hydroxy-6-methoxybenzylidenyl)-5,7-dibromo-
١	1		i	2-indolinone
ŀ	10715			
1	10717	Α	11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-
l	I			5,7-dibromo-2-indolinone
H	10717	В	2	
ı		- I	2	3-(2-ethoxybenzylidenyl)-5-iodo-2-indolinone
l				
Γ	10717	В	3	3-[(thien-2-yl)methylidenyl]-5-iodo-2-indolinone
				twisti z yymetrylideriyij-5-lodo-2-indolinone
L				
	10717	В	4	3-[(1-methylpyrrol-2-yl)methylidenyl]-5-iodo-2-
	1	1	- 1	indolinone
-	10717	В	-5	
		٠	١ -	3-(4-fluorobenzylidenyl)-5-iodo-2-indolinone
	-	- 1	İ	
	10717	В	6	3-[(indol-3-yl)methylidenyl]-5-iodo-2-indolinone
				tindon-y-interrylidenyij-5-iodo-2-indolinone
_				

10717	В		
	_   B	7	3-[(2-methylthien-5-yl)methylidenyl]-5-iodo-2- indolinone
10717	- ·B	8	3-(4-bromobenzylidenyl)-5-iodo-2-indolinone
10717	В	9	3-[(pyrrol-2-yl)methylidenyl]-5-iodo-2-indolinone
10717	В	10	3-(2-hydroxy-6-methoxybenzylidenyl)-5-iodo-2- indolinone
10717	В	11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5- iodo-2-indolinone
10717	С	2	3-(2-ethoxybenzylidenyl)-5-bromo-4-methyl-2- indolinone
10717	С	3	3-[(thien-2-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10717	С	4	3-[(1-methylpyrrol-2-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10717	С	5	3-(4-fluorobenzylidenyl)-5-bromo-4-methyl-2- indolinone
10717	С	6	3-[(indol-3-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10717	С	7	3-[(2-methylthien-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10717	С	8	3-(4-bromobenzylidenyl)-5-bromo-4-methyl-2- indolinone
10717	С	9	3-[(pyrrol-2-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10717	C	10	3-(2-hydroxy-6-methoxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10717	С	11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone
10717	D	2	3-(2-ethoxybenzylidenyl)-5-methylaminosulfonyl-2- indolinone

D	3	3-[(thien-2-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
- ·D	4	3-[(1-methylpyrrol-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
D	5	3-(4-fluorobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
D	6	3-[(indol-3-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
D	7	3-[(2-methylthien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
D	8	3-(4-bromobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
D	9	3-[(pyrrol-2-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
D	10	3-(2-hydroxy-6-methoxybenzylidenyi)-5- methylaminosulfonyl-2-indolinone
D	11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
E .	2	3-(2-ethoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	3	3-[(thien-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
Ε	4	3-[(1-methylpyrrol-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	5	3-(4-fluorobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	6	3-[(indol-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	7	3-[(2-methylthien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	8	3-(4-bromobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
		D 5 D 6 D 7 D 8 D 9 D 10 D 11 E 2 E 3 E 4 E 5 E 6 E 7

137 Table 13 (continued)

	1071	7	E		
		.	_	9	3-[(pyrrol-2-yl)methylidenyl]-5-[4-
	- 1	- 1			(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10717	,			
	10717	' †- ·	E	10	3-(2-hydroxy-6-methoxybenzylidenyl)-5-[4-
	1				(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
					y y and y an inosulfonyl]-2-indolinone
	10717			11	3-1/3 4 dib
	1	- 1			3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5-
	1	- 1			
	10717	F		2	I IIIUUIInone I
		1 '	- 1	2	3-(2-ethoxybenzylidenyl)-5-(morpholin-1-yl)sulfonyl-
		- 1	- 1		2-indolinone
	10717				
	10/1/	F	- 1	3	3-[(thien-2-yl)methylidenyl]-5-(morpholin-1-
	1	- 1	- 1		yl)sulfonyl-2-indolinone
			- 1		y your ony - 2-indolinone
	10717	F		4	3-I/1-mathulaus-1-0
			- 1		3-[(1-methylpyrrol-2-yl)methylidenyl]-5-(morpholin-
	l		- 1		1-yl)sulfonyl-2-indolinone
	10717	F	-+-	5.	1
		1 .	- 1	5.	3-(4-fluorobenzylidenyl)-5-(morpholin-1-yl)sulfonyl-
	1		- 1		2-indolinone
	10717				
	10/1/	F		6	3-[(indol-3-yl)methylidenylj-5-(morpholin-1-
		1			yl)sulfonyl-2-indolinone
		1			3.75dilonyi-2-indolinone
1	10717	F	$\neg$	7	3 1/2 1/- 1/1
-		1		•	3-[(2-methylthien-5-yl)methylidenyl]-5-(morpholin-1-
1		1			yl)sulfonyl-2-indolinone
Ì	10717	T-F	-+-		1
1		1 "	- 1	8	3-(4-bromobenzylidenyl)-5-(morpholin-1-yl)sulfonyl-
ı					2-indolinone
ŀ	10717			•	- Internet
ı	10/1/	F	1	9	3-[(pyrrol-2-yl)mothylist
ı					3-[(pyrrol-2-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
L					yr/sdilonyl-2-indolinone
Γ	10717	F	+	10	2 (2 )
l			1		3-(2-hydroxy-6-methoxybenzylidenyl)-5-(morpholin-
					1-yl)sulfonyl-2-indolinone
-	10717	F	-		1
	,	'		11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5-
		1	1		(morpholin-1-yl)sulfonyl-2-indolinone
_					1700monyl-z-indolinone
	10717	G		2	3-(2-ethoxybe as 11-1
					3-(2-ethoxybenzylidenyl)-5-(2-chloroethyl)-2-
		l	1		indolinone
_	10717	G	+-	3	0.600
			1	١	3-{(thien-2-yl)methylidenyl}-5-(2-chloroethyl)-2-
			1	i	indolinone
-	10717				
	10/1/	G	1	4	3-[(1-methylpyrrol-2-yl)methylidenyl]-5-(2-
	ļ		1	1	chloroethyl)-2-indolinone
_			l		3o. octiyi)-2-indolinone



10717			
10/1/	(	5	3-(4-fluorobenzylidenyl)-5-(2-chloroethyl)-2-
1	- 1	ı	indolinone
			modifione.
10717	G	6	3-Kindol 3 when the time
1	i	- 1	3-{(indol-3-yl)methylidenyl]-5-(2-chloroethyl)-2-
1	- 1	1	indolinone
10717	G	7	
	1 9	1 '	3-[(2-methylthien-5-yl)methylidenyl]-5-(2-
1	- 1	i	chloroethyl)-2-indolinone
10715			
10717	G	8	3-(4-brome)
	- 1	1	3-(4-bromobenzylidenyl)-5-(2-chloroethyl)-2-
1	1	i	indolinone
10717	G	9	
1	"	9	3-[(pyrrol-2-yl)methylidenyl]-5-(2-chloroethyl)-2-
1	1	!	indolinone
-		1	""downore
10717	G	10	3 (2 h
1	1		3-(2-hydroxy-6-methoxybenzylidenyl)-5-(2-
1	1	ı	chloroethyl)-2-indolinone
10717	G		
1	٦	11	3-[(3,4-dibromo-2-methylpyrrol-5-yl)methylidenyl]-5-
1	1	ı	(2-chloroethyl)-2-indolinone
	1	1	(2 dinordentyl)-2-indolinone
10718	A	2	
1	1	4	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5- yl)methylidenyll-5 7-dibag-
	1	1	yl)methylidenyl]-5,7-dibromo-2-indolinone
10718	-		
10718	Α	3	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5,7-
	1	1	dibra
	1	1	dibromo-2-indolinone
10718	A	4	
	1	-	3-[(1-hydroxynapth-2-yl)methylidenyl]-5,7-dibromo-
	1	1	2-indolinone
10718		1 .	, and the same of
10718	A	5	3-1/2-ethoxyon-h 1 0 /6
	1	1	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4-
	1	1	(ethoxycarbonylmethyl)pyrrol-5-yi]methylidenyl]-
10718	A	6	
	/ .	٥ ا	3-[(2-methyl-3-ethoxycarbonylfuran-5- yl)methylidenyll-5-7 dibases
		ı	yl)methylidenyl]-5,7-dibromo-2-indolinone
107.0		1	7 7 - 11 distributione
10718		7	3 (/2 2 -/
	Α		
	A	'	vi) mathetical loxy carbonyl-5-methylpyrrol-4-
	^	,	3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4- yl)methylidenyl]-5,7-dibromo-2-indolinone
10718			7, 7-dibiomo-2-indolinone
10718	A	8	7, 7-dibiomo-2-indolinone
10718			3-(4-chloro-3-nitrobenzylidenyl)-5 7-dibrana 2
	A		7, 7-dibiomo-2-indolinone
10718			3-(4-chloro-3-nitrobenzylidenyl)-5,7-dibromo-2- indolinone
	A	8	3-(4-chloro-3-nitrobenzylidenyl)-5,7-dibromo-2-indolinone 3-(2,4-dihydroxy-3-methylbosylidenyl)-6,7-dibromo-2-indolinone
	A	8	3-(4-chloro-3-nitrobenzylidenyl)-5,7-dibromo-2-indolinone 3-(2,4-dihydroxy-3-methylbosylidenyl)-6,7-dibromo-2-indolinone
10718	A	8	3-(4-chloro-3-nitrobenzylidenyl)-5,7-dibromo-2-indolinone  3-(2,4-dihydroxy-3-methylbenzylidenyl)-5,7-dibromo-2-indolinone
	A	8	3-(4-chloro-3-nitrobenzylidenyt)-5,7-dibromo-2-indolinone  3-(2,4-dihydroxy-3-methylbenzylidenyt)-5,7-dibromo-2-indolinone
10718	A	8	3-(4-chloro-3-nitrobenzylidenyl)-5,7-dibromo-2-indolinone 3-(2,4-dihydroxy-3-methylbosylidenyl)-6,7-dibromo-2-indolinone



_	10718			
- 1	10/18	B A	11	3-[(2-nitrofuran-5-yl)methylidenyl]-5,7-dibromo-2-
- 1		ı	- 1	indolinone
L.			1	modifiorie
- 1	10718 - B 2		2	3-1/2 4 41
			1 -	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-
- 1		ı	1	yl)methylidenyl]-5-iodo-2-indolinone
	10718	В		1
- 1			3	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5-
- 1		- 1	1	iodo-2-indolinone
-			1	- modificite
- 1	10718	В	4	3-I/1-bydrown- U.S.
.		- 1	1	3-[(1-hydroxynapth-2-yl)methylidenyl]-5-iodo-2-
- 1		- 1	- 1	indolinone
	10718	B	<del></del>	· ·
- 1		1 6	5	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4-
- 1		1	1	(ethoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5-
			-	iodo-2-indolinone
1 1	10718	В	6	I INDOMINONE
		- 1	1	3-[(2-methyl-3-ethoxycarbonylfuran-5-
1		1	1	yl)methylidenyl]-5-iodo-2-indolinone
1	0718			1
1 '	0110	В	7	3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4-
1		f	1	yl)methylidenyl]-5-iodo-2-indolinone
L		1	1	7,7/10d1/yilderlyij-5-lodo-2-indolinone
1	0718	В	8	
1		-	0	3-(4-chloro-3-nitrobenzylidenyl)-5-iodo-2-indolinone
		i	1	y and y o lodo-z-indolinone
<b>—</b>			_ i	
1 10	0718	В	9	3-/2 4 dibudes
1		1	i	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5-iodo-2-
1		1	1	indolinone
10	718	В		
, ,		1 6	10	3-[(furan-2-yl)methylidenyl]-5-iodo-2-indolinone
1		1	1	7.7. July 11-0-1000-2-Indolinone
		1	1 -	
10	718	В	11	3 1/2 - 11 - 6
		l	1	3-[(2-nitrofuran-5-yl)methylidenyl]-5-iodc-2-
		ı	1	indolinone
10	718	C		
.0	. 10	1	2	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyll-5-brome 4
		1		yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
		1	1	
107	718	С	3	
		l -	1	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5-
		1	l	bromo-4-methyl-2-indolinone
107	10			1
107	10	С	4	3-[(1-hydroxynapth-2-yl)methylidenyl]-5-bromo-4-
				mothyl 2 is a hylidenyl]-5-bromo-4-
				methyl-2-indolinone
107	18	C	5	
	.	٠	5	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4- (ethoxycarbonylmethyllowesel 5
	1	1		
				bromo-4-methyl-2-indolinone
107	18	С	6	3 (/2 v
		1	Ü	3-[(2-methyl-3-ethoxycarbonylfuran-5-
	- 1	1		yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
				,domone

10710			
10718			3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4- yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
10718C		8	3-(4-chloro-3-nitrobenzylidenyl)-5-bromo-4-methyl- 2-indolinone
10718	С	. 9	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5-bromo-4- methyl-2-indolinone
10718	C	10	3-[(furan-2-yi)methylidenyi]-5-bromo-4-methyl-2- indolinone
10718	C	11	3-[(2-nitrofuran-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10718	D	2	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5- yl)methylidenyl]-5-methylaminosulfonyl-2- indolinone
10718	D	3	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10718	D	4	3-[(1-hydroxynapth-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10718	D	5	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4- (ethoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- methylamiriosulfonyl-2-indolinone
10718	D	6	3-[(2-methyl-3-ethoxycarbonylfuran-5- yl)methylidenyl]-5-methylaminosulfonyl-2- indolinone
10718	D	7	3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4- yl)methylidenyl]-5-methylaminosulfonyl-2- indolinone
10718	D	8	3-(4-chloro-3-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10718	D	9	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10718	D	10	3-[(furan-2-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
10718	D	11	3-[(2-nitrofuran-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10718	E	2	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5- yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

	1071			
	10/10	8 E	3	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5-[4-
	ł	1	'	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
		_	1	y y y lichylathillosulfonyij-2-indolinone
	.10718	3 + E	4	2 1/4
	1	- 1	, ,	3-[(1-hydroxynapth-2-yl)methylidenyl]-5-[4-
	- 1	1	- 1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10718			
	10/10	E	5	3-[(2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4-
		- 1	1	ethoxycarbonylmethyl-pyrrol-5-yllmethylidenyl]-5-
			- 1	[4-(trifluoromethyl)-ty-fol-5-yl)methylidenyl]-5-
	10718	E	6	
	1	_	1 0	3-1(2-methyl-3-4/KAU913-b//
	1	1	i	yl)methylidenyl]-5-[4-
	10718			(a moor officiny) phenylaminosulfonyll-2-indolinone
	10/18	E	7	3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4-
	1 .	1	1	yl)methylidenyl]-5-methylpyrrol-4- (trifluoromethyl)
		1	1	(trifluoromethyl)phonylessi
	10718	E	8	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1	-	1	
	1	- 1		(trifluoromethyl)phenylaminosulfonyl]-2-indalinone
	10718			
	10/10	E	9	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5-[4-
	1	1	1	(trifluoromethyl)chesylami-
		1	1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10718	E	10	
	1 .	-	1 10	3-[(furan-2-yl)methylidenyl]-5-[4-
	1	1	1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10718			
	10/18	E	11	3-[(2-nitrofuran-5-yi)methylidenyi]-5-[4-
	1	1	1	(trifluoromethyl)phenylamia
		1	Į.	(trifluoromethyl)phenylaminosulfonyl]-5-[4-
	10718	F	2	
ı		1	1 ~	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-
Į		1 .	1.	1 7
ł	10718			i iidolinone
Ì	107 18	F	3	3-(3-bronio-2-hydroxy-5-methoxybenzylidenyl)-5-
ı		1	1	(morpholin-1-yl)sulfonyl-2-indolinone
L		1	I	, 1-yi/sullollyl-2-indolinone
ı	10718	F	4	21/4
ı		1	1	3-[(1-hydroxynapth-2-yl)methylidenyl]-5-(morpholin-
				1-yl)sulfonyl-2-indolinone
	10718	F		1
	10	1 -	5	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl-4-
		1	l	(ethoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5-
_		1		(morpholin-1-yl)sulfonyl-2-indolinone
	10718	F	6	
		1 1	•	3-[(2-methyl-3-ethoxycarbonylfuran-5-
		1 1		1 July 1 - O (IIIO) DIDIDIDI 1 - VI) sulfonul 2
-	10718	<del>   </del>		i idolinone
	10/10	F	7	3-[(2,3-dimethoxycarbonyl-5-methyl-pyrrol-4- yl)methylidenyll-5-(morpheli- 4-
	j		i	yl)methylidenyl]-5-(morpholin-1-yl)sulfonyl-2-
_				indolinone
	10718	F	8	3 (4 oblass 0 to
	.	1	ĭ	3-(4-chloro-3-nitrobenzylidenyl)-5-(morpholin-1-
	l	- 1		yl)sulfonyl-2-indolinone

	1071	^				
	1071	8	F	9		3-12 A-dibud-
	i	- 1		1	ı	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5-
	1	- 1		1	- 1	(morpholin-1-yl)sulfonyl-2-indolinone
	1071					
	1 1071	10718 - F 10			3-[(furan-2-yl)methylidenyl]-5-(morpholin-1-	
٠	- 1	- 1		1	- 1	trada-2-yijinetnylidenyi]-5-(morpholin-1-
	1	- 1		1		yl)sulfonyl-2-indolinone
	10718	2	F			
	1 ,0,7	'	r	11	T	3-[(2-nitrofuran-5-yl)methylidenyl]-5-(morpholin-1-
	1	ı		i .	- 1	(morpholin-1-
	1	i		1	- 1	yl)sulfonyl-2-indolinone
	10718		<u> </u>			
	1	' '	ا د	2	- 1	3-[(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-yl)methylidenyll-5-(2,6bles-ethoxycarbonylpyrrol-5-
	1	- 1	- 1		- 1	vi)methylidenyll 5 (2 10xycarbonylpyrrol-5-
		ı	- 1		- 1	yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
	10718	1				
	1	1	' I	3	- 1	3-(3-bromo-2-hydroxy-5-methoxybenzylidenyl)-5-
	1	- 1	- 1		- 1	(2-chloroothu) 0
	1	- 1	- 1		- 1	(2-chloroethyl)-2-indolinone
	10718	0	-			
	101.10	1	'	4	- 1	3-[(1-hydroxynanth 2 yt) # #
	1	1	- 1			3-[(1-hydroxynapth-2-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
		- 1	- 1		. 1	chioroethyr)-2-indolinone
	10718	G	-+			
		"	- 1	5 ·	- 1	3-[[2-ethoxycarbonyl-3-(2-ethoxycarbonyl)ethyl- ethoxycarbonylmethyl)pyccol 5-yll
		ı	- 1		40	ethoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5-
		- 1	- 1		- 1 '	(2 chierally))pyrrol-5-yl]methylidenyl]-5-
	10718	G	-+			
	1	1 0	- 1	6	- 1	3-1/2-mathyl 2 -11
	1	- 1	- 1		-	yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
	L .	1	- 1		-	- 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	10718	G	-	7	-	,
	1	-	- 1	,	- 1	3-[(2,3-dimethoxycarbonyl-5-methylpyrrol-4-
		1	- 1		- 1	yl)methylidenyll-5-(2-chlorosty 1) 2
ı		- 1	- 1		1	yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
ı	10718	G	_	8		
ı		1 -	- 1	٥	3-(	4-chloro-3-nitrobenzylidenyl)-5-(2-chloroethyl)-2-
ı		1	- 1		1	indolinone
ŀ			- 1	•	1	domone
ł	10718	G		9	+-	
l		_	- 1	9	1	3-(2,4-dihydroxy-3-methylbenzylidenyl)-5-(2-
l		1	- 1		1	chloroethyl)-2-indolinone
ŀ	4000		.		1	77 = madimone
ı	10718	G		10	1 3	Ilfusor 2 "
		1	1		ا ا	-[(furan-2-yl)methylidenyl]-5-(2-chloroethyl)-2-
		1	1		1	indolinone
-	10718	-			1	
	10/18	G		11	3-1/2	Partitrofuran E
		1	1		1 11/2	?-nitrofuran-5-yl)methylidenyl]-5-(2-chloroethyl)-
		1	1			2-indolinone
	10719					-
	10719	Α		2	3-14-	ethoxy-3-methoxybenzylidenyl)-5,7-dibromo-2-
		1	1		- ( -	ethoxy-3-methoxybenzylidenyl)-5,7-dibromo-2-
		l	1	1		indolinone
	10719		4			
	10/18	Α	1 -	3	3	-(3,4-dihydoxybenzylidenyi)-5,7-dibromo-2-
	J		1	ł	٠	(5,7-dillyddxybenzylidenyl)-5,7-dibromo-2-
			1	- 1		indolinone
-	10719					
	.0/19	Α	1	4	3-6	2 4-dimethow/hourself
	1		1	1	٠,	2,4-dimethoxybenzylidenyl)-5,7-dibromo-2-
	- 1		1	- 1		indolinone
_						



107	710				
1 107	19	Α	5		3-[(2,4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-
1	- 1		1	- 1	5,7-dibromo-2-indolinone
107	19 -L	·A			
		.~	6		3-(2,4,6-trimethoxybenzylidenyl)-5,7-dibromo-2-
- 1	- 1		1	- 1	indolinone
107	19	A			
1	.	~	7	3-(	4-hydroxybenzylidenyl)-5,7-dibromo-2-indolinon
1	- 1		1	- 1	,
1071	0	A		- 1	
1	١,	А	8	3	-(4-dimethylaminobenzylidenyl)-5,7-dibromo-2-
1			1	- 1	indolinone
1071				-	doi.iione
10/1	9	Α	9	3-	-(2-chloro-4-fluorobenzylidenyl)-5,7-dibromo-2-
1	- 1		1	- 1	indolinone
1071			l	- 1	indolluone
10719	, ,	Α	10	3-	(3-nitrohannuli I
1	- 1	- 1			(3-nitrobenzylidenyl)-5,7-dibromo-2-indolinone
		- 1		- 1	
10719		A	11	-	14.0
1	- 1		• • •	3.	[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5,7-
	- 1		•	- 1	dibromo-2-indolinone
10719		3	2	+	•
I	- 1	- 1	~	3-	(4-ethoxy-3-methoxybenzylidenyl)-5-iodo-2-
1	- 1	- 1			indolinone
10719	E	-	3		
	-	·	3	3-(3	,4-dinydoxybenzylidenyl)-5-iodo-2-indolinone
	- 1	- 1		1	. , servity o-lodo-2-indolinone
10719	В	-			
	"	- 1	4	3-(2,	4-dimethoxybenzylidenyl)-5-iodo-2-indolinone
	- 1	- 1	_	1	nderlyij-5-lodo-2-indolinone
10719	В				
	"	- 1	5	3-[(2,	4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-5-
	1				iodo-2-indolinone
10719	+	-		l	madimone
10113	В		6	3-	(2,4,6-trimethoxybenzylidenyl)-5-iodo-2-
	1			1	indolinone
10719					doittotte
10719	В		7	3-(4	hydroxybenzulid
	1			- ( '	-hydroxybenzylidenyl)-5-iodo-2-indolinone
10719	1				
10/19	В	T	8	3-/	4-dimethyla :
	1			J-(.	4-dimethylaminobenzylidenyl)-5-iodo-2-
			- 1		indolinone
10719	В	$\top$	9	3 /2	D obli
	l	1		J-(2	2-chloro-4-fluorobenzylidenyl)-5-iodo-2-
	1		- 1		indolinone
10719	В	+-	10		
	_	1	10	3-(3	-nitrobenzylidenyl)-5-jodo-2-indoliness
			- 1		, , - 1990 Z-midolinone
				J-(3	-nitrobenzylidenyl)-5-iodo-2-indolinone



	1071	-		
	10/1	9   B	11	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5-iodo-2-
	ı	- 1	1	indolinone
	L		1	indolinone
	10719	) <del> </del> C	2	3.(4 a)ha 0
		1	_	3-(4-ethoxy-3-methoxybenzylidenyl)-5-bromo-4-
	1	1	- 1	methyl-2-indolinone
	10719	C		
	1	1 0	3	3-(3,4-dihydoxybenzylidenyl)-5-bromo-4-methyl-2-
	1	1	1	indolinone
	<u> </u>		_	
-	10719	_ c	4	3-(2,4-dimethoxybenzylidenyl)-5-bromo-4-methyl-2-
•			-	(-1 - a.methoxyberizylidenyl)-5-bromo-4-methyl-2-
		ı	l l	indolinone
	10719	C	5	
	1		5	3-[(2,4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-5- bromo-4-methyl-2 indolin
	1	- 1	- 1	bromo-4-methyl-2-indolinone
	10717			- Traditione
	10719	C	6	3-(2.4.6-trimethovs/har-viii
		i		3-(2,4,6-trimethoxybenzylidenyl)-5-bromo-4-methyl-
	1	1	1	2-indolinone
	10719	C	<del></del>	
	1	"	7	3-(4-hydroxybenzylidenyl)-5-bromo-4-methyl-2-
	1	- 1	1	indolinone
			1	
	10719	C	8	3-/4 dimethylesi
	i	1		3-(4-dimethylaminobenzylidenyl)-5-bromo-4-
		1	1	methyl-2-indolinone
	10719	- C		
	107.15	-	9	3-(2-chloro-4-fluorobenzylidenyl)-5-bromo-4-
ı		ı	1	methyl-2-indolinone
į			1	and a middifford
1	10719	C	10	3 /2 nitroh // /
1		1	1	3-(3-nitrobenzylidenyl)-5-bromo-4-methyl-2-
1		i	1 .	indolinone
Ì	10719	C	-	
I		1	11	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5-bromo-
l		j		4-methyl-2-indolinone
L			1	- Industrial Controlle
l	10719	D	2	2 (4 11
ı		1	1	3-(4-ethoxy-3-methoxybenzylidenyl)-5-
		1	l	methylaminosulfonyl-2-indolinone
٠	10719			
	10719	D	3	3-(3,4-dihydoxybenzylidenyl)-5-
			i	methylaminosulfonyl-2-indolinone
		1	1	y-a-miosalionyi-2-indolinone
	10719	D	4	
		_	7	3-(2,4-dimethoxybenzylidenyl)-5-
		1 1		methylaminosulfonyl-2-indolinone
-	10719			1
	10/19	D	5	3-[(2,4-dimetnyl-3-ethylpyrrol-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
		1		methylaminosulfa-vil a yl)methylidenyl]-5-
		1		
	10719	D	6	· ·
		_	۰ ا	3-(2,4,6-trimethoxybenzylidenyl)-5-
	l	- 1		methylaminosulfonyl-2-indolinone
-				,



	10719			
	10/19	D	7	3-(4-hydroxybenzylidenyl)-5-methylaminosulfonyl- 2-indolinone
	10719	- ·D	8	3-(4-dimethylaminobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
	10719	D	9	3-(2-chloro-4-fluorobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
_	<del>- 10719</del>	- D-	10	3-(3-nitrobenzylidenyl)-5-methylaminosulionyl-2- indolinone
	10719	D	11	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5- methylaminosulfonyl-2-indolinone
	10719	E	2	3-(4-eithoxy-3-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	3	3-(3,4-dihydoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	4	3-(2,4-dimethoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	5	3-{(2,4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
	10719	E	6	3-(2,4,6-trimethoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	7	3-(4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	8	3-(4-dimethylaminobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	9	3-(2-chloro-4-fluorobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	10	3-(3-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	E	11	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10719	F	2	3-(4-ethoxy-3-methoxybenzylidenyl)-5-(morpholin- 1-yl)sulfonyl-2-indolinone



	1071				
	1071	9	F 3		3-(3,4-dihydoxybenzylidenyl)-5-(morpholin-1-
	i	1	ı		o (o,difyddxybenzylidenyl)-5-(morpholin-1-
	- 1	- 1	- 1		yl)sulfonyl-2-indolinone
	10719				
	10/18	9 1- 1	4		3 /2 / 4: !!
	1	ì	1 '		3-(2,4-dimethoxybenzylidenyl)-5-(morpholin-1-
	ł	ı	i		yl)sulfonyl-2-indolinone
		1	1		y y
	10719	F	5		
		' '	٦		3-[(2,4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-5-
	ı	J	1		(morpholip 1 vi) - 3-yl) methylidenyl]-5-
	1	- 1	i i		(morpholin-1-yl)sulfonyl-2-indolinone
	10719				f .
_	7-07-3		6		3-(2,4,6-trimethoxybenzylidenyl)-5-(morpholin-1-
	l .	ı	í		(-1.75 amicaloxybenzylidenyl)-5-(morpholin-1-
		- 1	ı		yl)sulfonyl-2-indolinone
	40740				1
	10719	F	7		2 /4 5
	1	- 1	1 .		3-(4-hydroxybenzylidenyl)-5-(morpholin-1-
	1 .	ſ	- 1		yl)sulfonyl-2-indolinone
		- 1			v v andomione
	10719	F	8		
	1		0		3-(4-dimethylaminobenzylidenyl)-5-(morpholin-1-
	l	i			yl)sulfonyl-2-indolinone
	ĺ	1	1		y i/sullonyi-2-indolinone
	10719			1	•
	10719	F	9		3-(2-chloro-4-fluorobenzylidenyl)-5-(morpholin-1-
	1	1	1	- 1	(2-chioro-4-ilubrobenzylidenyl)-5-(morpholin-1-
		1	- 1	- 1	yl)sulfonyl-2-indolinone
				- 1	
ı	10719	F	10	-	2 (2 -1)
ı		ı	1 10	- 1	3-(3-nitrobenzylidenyl)-5-(morpholin-1-yl)sulfonyl-2-
ı		- 1		- 1	indolinone
ı		1	1	- 1	admidile
1	10719	F	11		
l		1 .	11	- 1	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5-
l		I	1	- 1	(morpholip-1 vi) avife- in the many lidenyi]-5-
ı		1	1	- 1	(morpholin-1-yl)sulfonyl-2-indolinone
Γ	10719	G			I
ı	10713	G	2		3-(4-ethoxy-3-methoxybenzylidenyl)-5-(2-
		1	.	- 1	- (7-5-11-10xybenzylidenyl)-5-(2-
		1	1 .		chloroethyl)-2-indolinone
-	40710			- 1	
	10719	G	3	_	2 (2 4 4)
		1	1	- 1	3-(3,4-dihydoxybenzylidenyl)-5-(2-chloroethyl)-2-
		1		- 1	indolinone
_		1	1	- 1	esimone
	10719	G	4		
		1	1 7	13	-(2,4-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2-
		1	ı	- 1	indolinone
		1			modimone
	10719	G			
	.07.10	G	5	3	-[(2,4-dimethyl-3-ethylpyrrol-5-yl)methylidenyl]-5-
		1	1	- 1	(2) methylidenyll-5-
		J		- 1	(2-chloroethyl)-2-indolinone
-	40740			- 1	1
	10719	G	6	3.	(2,4,6-trimethoxybenzylidenyl)-5-(2-chloroethyl)-
			1	1 5	(2,4,0-trimethoxybenzylidenyl)-5-(2-chloroetryl)
		1	1	- 1	2-indolinone
_			1	- 1	
	10719	G	7	-	
			, ,	1	3-(4-hydroxybenzylidenyl)-5-(2-chloroethyl)-2-
			1	1	7-1-17 3-1-17 (2-chioroethyl)-2-
	1		l	1	indolinone
_	10719				
	10/19	G	8	3-1	4-dimethylaminobenzylidenyl)-5-(2-chloroethyl)-
				1-1	
	- 1	ł		1	2-indolinone
-				1	.*



	10719				
	10718	'   (	3	9	3-/2-chlore + 5
	1	j		1	3-(2-chloro-4-fluorobenzylidenyl)-5-(2-chloroethyl)
		- 1		1	2-indolinone
	10719				
- 1	107 13	1 0	i	10	3./2 miles!
. 1		1		1	3-(3-nitrobenzylidenyl)-5-(2-chloroethyl)-2-
- 1		- 1		1	indolinone
r	10719			L	
- 1	10719	G		11	2140
- 1		- 1		1	3-[4-fluoro-2-(trifluoromethyl)benzylidenyl]-5-(2- chloroethyl)-2-indelin-
- 1		- 1		ł	chloroethyl) 2 i Julia zylidenyl]-5-(2-
-			- 1		chloroethyl)-2-indolinone
	10720	A		2	
- 1		1	- 1	2	3-(2,4,6-trifluorobenzylldenyl)-5,7-dibromo-2-
- 1		- 1	- 1		Jacobski zylidenyl)-5,7-dibromo-2-
_		1	- 1		indolinone
- 1	10720	A	-		
- 1			- 1	3	3-(4-hydroxy-2-methoxybenzylidenyl)-5,7-dibromo-
- 1		1	- 1		2-methoxybenzylidenyl)-5.7-dibromo
- 1		1	- 1		2-indolinone
	10720		-		· ·
- 1	.0,20	A	- 1	4	3-/3 4-dimak
-		1	- 1		3-(3,4-dimethoxybenzylidenyl)-5,7-dibromo-2-
-		1			indolinone
-	4070		- 1		".domione
-	10720	A	$\neg$	5	2 (0 )
1		1	- 1		3-(2-hydroxybenzylidenyl)-5,7-dibromo-2-indolinone
		1			Judetryl)-5,7-dipromo-2-indolinone
_		1	- 1		
1	10720	A	+		
1	•	1 ^	1	6	3-benzylidenyl-5,7-dibromo-2-indolinone
1		1	-		- Jenzy ilderlyl-5, /-dibromo-2-indolinone
1		1	1		- widelinoile
	10720	<del> </del>	┸		
1	10/20	A		7	3-[(2-methylmercaptothien-5-yl)methylidenyl]-5,7-
1		l	1		3-[(2-methylmercaptothien-5-v/)methyllid
1		Í	1		dibromo-2-indolinone
<u> </u>			1		
ı	10720	Α	1	8	
ı			1	0	3-(2,4-dihydroxy-6-methylbenzylidenyl)-5,7-
	1		1		dibro-methylbenzylidenyl)-5.7-
					dibromo-2-indolinone
	10720	A	-		1
		^		9	3-(3-ethoxy-4-hydroxybenzylidenyl)-5,7-dibromo-2-
	- 1		!		t - mony 4-nydroxybenzylidenyl)-5.7-dibrama 2
	1				indolinone
1	0720				,
	20	Α		10	3-(2-hydroxy-5-methoxybenzylidenyl)-5,7-dibromo-
	- 1				1 - Inyuruxy-5-methoxybenzylidenyl)-5 7 -
	- 1	i			2-indolinone
	10700			- 1	s.inone
7	0720	Α	T	11	1 800
			1	1.1	3-[(imidazol-2-yl)methylidenyl]-5,7-dibromo-2-
		1	1		7.7. dibromo-2-
			1		indolinone
1	0720	B	+-		
		ь	1	2	3-(2,4,6-trifluorobenzylidenyl)-5-iodo-2-indolinone
	i		1		
			1		I strate 2 middlinone
1/	0720				
- 11	1/20	В		3	2 /4 5-1
	1			-	3-(4-hydroxy-2-methoxybenzylidenyl)-5-iodo-2-
	- 1				indolinone
				1	"idolitione
10	720	В		4	
	1	- 1		4	3-(3,4-dimethoxybenzylide n
	1	- 1		ı	3-(3,4-dimethoxybenzylidenyl)-5-iodo-2-indolinone
	- 1	- 1		1	zomione

## 148 Table 13 (continued)

	10720					
	10720	' I	В	5	3-(2-hydroval	enzylidenyl)-5-iodo-2-indolinone
	1	- 1			- (2 llydroxyb	enzylidenyl)-5-iodo-2-indolinone
	ı	- 1		1	i	
	10720				1	
	10720		В	6	2 .	
	1	- 1		1 -	3-Denzyli	idenyl-5-iodo-2-indolinone
	1	- 1		1	1	maomione
				1	1	
	10720	- 1	В	7	2 //0	
		ł		1 '	3-1(2-methylmer	captothien-5-yl)methylidenyl]-5-
	1	- 1		ı	j.	odo-2-indolinone
		_		1	1	- ao 2 maoninone
	10720		В	8		
	1	'	_	1 °	3-(2,4-dihydroxy-	-6-methylbenzylidenyl)-5-iodo-2-
	1	1		1	1	indolinone
		- 1		1	i	indulinone
	10720		В			
	1	İ	ь	9	3-(3-ethoxy_4-h	ydroxybenzylidenyl)-5-iodo-2-
	1	- 1		l	(	ydioxybenzylidenyl)-5-iodo-2-
	i	- 1		1		indolinone
	10720					
	10720	- 1	В	10	3-(2-hydrova, F.	
	1	- 1			o (2 Trydroxy-5-H	nethoxybenzylidenyl)-5-iodo-2-
	1	- 1				indolinone
	10000					
	10720	- 1	В	11	2 1/2-11	
	i	- 1	- 1		3-[(imidazol-2-yl)m	ethylidenyl]-5-iodo-2-indolinone
	i	- 1				Jacob Jacob Z-Indollhone
		- 1	- 1			1
	10720		2	2		1
	1	1	- 1	2	3-(2,4,6-trifluorober	ZVIIdenyl) E h
	1	i	- 1			nzylidenyl)-5-bromo-4-methyl-2-
		- 1	- 1			indolinone
	10720	1	<del></del>			
	.0.20	1 0	'	3	3-(4-hydroxy-2 mol	thoxybenzylidenyl)-5-bromo-4-
		1	- 1		( · · · · ) a · o x y - 2 -       e	lloxybenzylidenyl)-5-bromo-4-
1		- 1	- 1		meti	nyl-2-indolinone
1	10720	-				1
- 1	10720	C	- 1	4	-/3'4 dimeth -	zylidenyl)-5-bromo-4-methyl-2-
ı			1		-(Si4-dillietnoxyben	Zylidenyl)-5-bromo-4-mothyl 2
1		1				indolinone
ŀ			- 1			
1	10720	C		5	0.10	
1		1 -		J	3-(2-hydroxybenzy	lidenyl)-5-bromo-4-methyl-2-
1		1	- 1		٠,,	ndolinone
L		1	1			indultione
ı	10720	C	$\overline{}$			į –
ı		"	- 1	6	3-benzylidenyl-5-b	romo-4-methyl-2-indolinone
ı		1	- 1		, = c, . c - b	101110-4-methyl-2-indolinone
1		1	- 1			
Г	10720	C	-			ľ
	10120	1 0	- 1	7	3-1/2-methylmess	tothien-5-yl)methylidenyl]-5-
		ı			o Itz metnymiercap	tothien-5-yl)methylidenyll-5-
		l	- 1		bromo-4-m	nethyl-2-indolinone
-	10720					, - madinione
	10720	C		8	(2.4.11)	
			- 1		(2,4-ainydroxy-6-me	ethylbenzylidenyl)-5-bromo-4-
					methy	l-2-indolinone
_			1			comone
	10720	C	$\neg$	9		1
	1	•	- 1	9	-(3-ethoxy-4-hydrox	xybenzylidenyl)-5-bromo-4-
	1		- 1	I	mother	2 :- Lyildenyi)-5-bromo-4-
			- 1	1	metnyi	-2-indolinone
_	10720	С	+-			l l
		C	1	10	(2-hydroxy-5-math-	xybenzylidenyl)-5-bromo-4-
	1		1	i		xybenzylidenyl)-5-bromo-4-
	j		1	- 1	methyl-	-2-indolinone
_						-
						ľ

	10720			
	10720	0	11	3-[(imidazol-2-yl)methylidenyl]-5-bromo-4-methyl-2-
	١.		1	indolinone
	10720	~- D	2	0.10
	1	-	1 -	3-(2,4,6-trifluorobenzylidenyl)-5-
	l			methylaminosulfonyl-2-indolinone
	10720		3	
			) 3	3-(4-hydroxy-2-methoxybenzylidenyl)-5-
	1		- 1	methylaminosulfonyl-2-indolinone
	10720	, D		
. –	10/20	٦ ا	4	3-(3,4-dimethoxybenzylidenyl)-5-
1		- 1	ı	methylaminosulfonyl-2-indolinone
	10720			
	10/20	D	5	3-(2-hydroxybenzylidenyl)-5-methylaminosulfonyl-2-
- 1			i	indolinone
- 1			1	indomone.
- 1	10720	D	6	3-banzylideayl 5 mathyl
- 1		1	1	3-benzylidenyl-5-methylaminosulfonyl-2-indolinone
			1	·  ·
П	10720	D	7	3 (/2 !! -!
- 1			1	3-[(2-methylmercaptothien-5-yl)methylidenyl]-5-
-		}	1	methylaminosulfonyl-2-indolinone
r	10720	D	8	_1
		1	°	3-(2,4-dihydroxy-6-methylbenzylidenyl)-5-
			1	methylaminosulfonyl-2-indolinone
$\vdash$	10720	D		,
	10720	"	9	3-(3-ethoxy-4-hydroxybenzylidenyl)-5-
			1	methylaminosulfonyl-2-indolinone
-	10720	-		
	10720	D	10	3-(2-hydroxy-5-methoxybenzylidenyl)-5-
1		1	1	methylaminosulfonyl-2-indolinone
1			1 -	
1	10720	D	11	3-l/imidazel 2 vilv
1		1		3-[(imidazol-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
L	(		1	mount in the state of the state
	10720	E	2	2 (2 ( 0 ) ( 0 )
1		1	_	3-(2,4,6-trifluorobenzylidenyl)-5-[4-
			1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	10720	F	3	1
		_	1 3	3-(4-hydroxy-2-methoxybenzylidenyl)-5-[4-
		Í		(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
_	10720	F	<del>                                     </del>	l I
		-	4	3-(3,4-dimethoxybenzylidenyl)-5-[4-
			1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
-	10720			
	10/20	E	5	3-(2-hydroxybenzylidenyl)-5-[4-
				(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
				, , , , , , , , , , , , , , , , , , ,
	10720	E	6	3-henzulide- I 5 to
	ł			3-benzylidenyl-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

				•
10720	1	Ε	7	3-[(2-methylmercaptothien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10720	7-	E	8	3-(2,4-dihydroxy-6-methylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indoiinone
10720		E.	9	3-(3-ethoxy-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
 10720	[	E	- 10	3-(2-hydroxy-5-methoxybenzylidenyi)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10720		E	11	3-[(imidazol-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10720		F	2	3-(2,4,6-trifluorobenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10720		F	3	3-(4-hydroxy-2-methoxybenzylidenyl)-5-(morpholin- 1-yl)sulfonyl-2-indolinone
10720		F	4	3-(3,4-dimethoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10720		F	5	3-(2-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10720		F	6	3-benzylidenyl-5-(morpholin-1-yl)sulfonyl-2- indolinone
10720		F	7	3-[(2-methylmercaptothien-5-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10720		F	8	3-(2,4-dihydroxy-6-methylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10720		F	9	3-(3-ethoxy-4-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10720	1	=	10	3-(2-hydroxy-5-methoxybenzylidenyl)-5-(morpholin- 1-yl)sulfonyl-2-indolinone
10720	F		11	3-[(imidazol-2-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10720	G		2	3-(2,4,6-trifluorobenzylidenyl)-5-(2-chloroethyl)-2-indolinone



	10720	G			
	10720	٦	3		3-(4-hydroxy-2-methoxybenzylidenyl)-5-(2-
	1 .	- 1	1		chloroethyl)-2-indolinone
	10720	G	4		
		"	4		3-(3,4-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2-
	1		ı		indolinone
	10720	G	5		
			1 3	- 1	3-(2-hydroxybenzylidenyl)-5-(2-chloroethyl)-2-
	1		1	- 1	indolinone
_	10720	. G	6	_	
		'  -	"	- 1	3-benzylidenyl-5-(2-chloroethyl)-2-indolinone
	1	- 1	1	- 1	, ,
	10720	G	7	-+	2.1/0
	1	-	1 '	- 1	3-[(2-methylmercaptothien-5-yl)methylidenyl]-5-(2-
	1 .		1	- 1	chloroethyl)-2-indolinone
	10720	G	8	-	
					3-(2,4-dihydroxy-6-methylbenzylidenyl)-5-(2-
			1		chloroethyl)-2-indolinone
	10720	G	9		· ·
	1	"	9		3-(3-ethoxy-4-hydroxybenzylidenyl)-5-(2-
	1				chloroethyl)-2-indolinone
	10720	G	10	_	1
		"	10	- 1	3-(2-hydroxy-5-methoxybenzylidenyl)-5-(2-
		ł	1	- 1	chloroethyl)-2-indolinone
	10720	G	+		· ·
	1	"	11	3	3-[(imidazol-2-yl)methylidenyl]-5-(2-chloroethyl)-2-
			1	-	indolinone
	10721	A		$\perp$	
ı		1 ^	2	1	3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5,7-
ı		1	1 -		dibromo-2-indolinone
İ	10721	A	3		
1		^	3	3-	[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5,7-
Į		1 .	1		dibromo-2-indolinone
ŀ	10721	A	4		
l		1 ^	4	1	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5,7-
ı			l		dibromo-2-indolinone
r	10721	A		1_	
		^	5	3.	-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5,7-
				1	dibromo-2-indolinone
	10721	A		_	
		^	6	3-	(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl)-
				1	5,7-dibromo-2-indolinone
-	10721	A			
	10,2,	^	7	3-[	(2-chlorothien-5-yl)methylidenyl]-5,7-dibromo-2-
	j	1			indolinone
-	10721				
	10/21	Α	8	. :	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5,7-
	1	- 1			dibromo-2-indolinone
-					

- 1	10721	A	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5,7-dibromo-2-
- !		- 1	- 1	indolinone
		1		"Idollitorie
Γ	10721	· A	10	2 /2
- 1			1 .0	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5,7-
- 1		ì	1	dibromo-2-indolinone
-	10721	A		
- 1	10721	A	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
- 1		i	1	dibromo-2-indolinone
L				- modimone
	10721	, В	2	3-I(1-mathylpanzimida- I 0
- 1		- 1	1	3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5-iodo- 2-indolinone
		ı	1	2-indolinone
	10721	В	3	
		-	1 3	3-[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5-
- 1		- 1		iodo-2-indolinone
-	10721			
-	10/21	В	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5-iodo-2-
		1	1	indolinone
		1		"Idolfiotie
Г	10721	В	5	31/45871-1-1
1		1		3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5-iodo-
1		1		2-indolinone
$\vdash$	10721	В		. 14
1	10/21	В	6	3-(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl)-5-
		1	1	iodo-2-indolinone
<u>_</u>			1	·
1	10721	8	7	3-I(2-chlorothian 5 -t)
1			1	3-[(2-chlorothien-5-yl)methylidenyl]-5-iodo-2-
1		1	1	indolinone
	10721	В	8	
1		1 "		3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-iodo-2-
		1		indolinone
⊢	10721		-	
	10721	В	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5-iodo-2-
		1	Í	indolinone
L		ı	1	and distriction
	10721	В	10	3 /2 hram- 5 //
			1	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5-iodo-
		1	l	2-indolinone
	10721	В .		
	10721	1 5	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl]-5-iodo-2-
		1		indolinone
	10721	С	2	3-I/1-methylhoppinide- 18 iii
		1 1		3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5-
		1 1		bromo-4-methyl-2-indolinone
_	10721	C	3	
		. '	3	3-[(4-chloro-1-methylpyrazol-3-yi)methylidenyi]-5-
		1		bromo-4-methyl-2-indolinone
	40704			
	10721	С	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5-bromo-4-
		1		methyl-2-indolinone
		1		

10721	С	5	3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone
10721 -	- · C	6	3-(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl)-5- bromo-4-methyl-2-indolinone
10721	С	7	3-[(2-chlorothien-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10721	С	8	3-[(2,4-dimethylpyrrol-5-yl)methylidenylj-5-bromo-4- methyl-2-indolinone
10721	С	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10721	С	10	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10721	С	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10721	D	2	3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	3	3-[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	5	3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5- methylaminosullonyl-2-indolinone
10721	D	6	3-(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	7	3-[(2-chlorothien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	8	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10721	D	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10721	D	10	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone

10721	D	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10721	·E	2	3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	3	3-[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	5	3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	6 .	3-(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl)-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- . indolinone
10721	E	7	3-[(2-chlorothien-5-yl)methylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	8	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E	10	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	E .	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10721	F	2	3-[(1-methylbenzimidazol-2-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	F	3	3-[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	F	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5- (morpholin-1-yl)suifonyl]-2-indolinone
10721	F	5	3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	F	6	3-(3-chloromethyl-2-hydroxy-5-nitrobenzylidenyl)-5- (morpholin-1-yl)sulfonyl]-2-indolinone

10721	F	7	3-[(2-chlorothien-5-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl]-2-indolinone
10721	· F	8	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	F	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl]-2-indolinone
10721	F	10	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	F	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl]-2-indolinone
10721	G	2	3-[(1-methylbenzimidazol-2-yl)methylidenyi]-5-(2- chloroethyl)-2-indolinone
10721	G	3	3-[(4-chloro-1-methylpyrazol-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10721	G	4	3-[(2,3-dimethylthien-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10721	G	5	3-[(4,5,6,7-tetrahydroindol-2-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10721	G	6	3-(3-chloromethyl-2-hydroxy-5-nitrobenzyl:denyl)-5- (2-chloroethyl)-2-indolinone
10721	G	7	3-[(2-chlorothien-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10721	G	8	3-[(2,4-dimethylpyrrol-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10721	G	9	3-(3-t-butyl-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10721	G	10	3-(3-bromo-5-t-butyl-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10721	G	11	3-(3,5-di-t-butyl-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10722	A	2	3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5,7- dibromo-2-indolinone

			- 10 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10722	A	3	3-(2,4,6-trihydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10722 -	· A	4	3-[(2-nitrothien-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10722	A	5	3-(4-carboxybenzylidenyl)-5,7-dibromo-2-indolinone
10722	A	6	3-(2,4-difluorobenzylidenyl)-5,7-dibromo-2- indolinone
10722	A	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10722	A	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10.722	A	9	3-[(2-nitrothien-4-yl)methylidenyl]-5,7-dibromo-2- indolinone
10722	A	10	3-(4-di-n-butylaminobenzylidenyl)-5,7-dibromo-2- indolinone
10722	A	11	3-[4-(trifluoromethyl)benzylidenyl]-5,7-dibromo-2- indolinone
10722	В .		3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5-iodo-2- indolinone
10722	В .	3	3-(2,4,6-trihydroxybenzylidenyl)-5-iodo-2-indolinone
10722	В	4	3-[(2-nitrothien-5-yl)methylidenyl]-5-iodo-2- indolinone
10722	В	5	3-(4-carboxybenzylidenyl)-5-iodo-2-indolinone
10722	В	6	3-(2,4-difluorobenzylidenyl)-5-iodo-2-indolinone
10722	В	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5-iodo-2- indolinone
10722	В	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5-iodo- 2-indolinone

В	9	3-[(2-nitrothien-4-yl)methylidenyl]-5-iodo-2- indolinone
В	10	3-(4-di-n-butylaminobenzylidenyl)-5-iodo-2- indolinone
В	11	3-[4-(trifluoromethyl)benzylidenyl]-5-iodo-2- indolinone
С	2	3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5- dibromo-4-methyl-2-indolinone
С	3	3-(2,4,6-trihydroxybenzylidenyl)-5-dibromo-4- methyl-2-indolinone
С	4	3-[(2-nitrothien-5-yl)methylidenyl]-5-dibromo-4- methyl-2-indolinone
С	5	3-(4-carboxybenzylidenyl)-5-dibromo-4-methyl-2- indolinone
С	6	3-(2,4-difluorobenzylidenyl)-5-dibromo-4-methyl-2- indolinone
С	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5-dibromo- 4-methyl-2-indolinone
С	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5- dibromo-4-methyl-2-indolinone
С	9	3-[(2-nitrothien-4-yl)methylidenyl]-5-dibromo-4- methyl-2-indolinone
С	10	3-(4-di-n-butylaminobenzylidenyl)-5-dibromo-4- methyl-2-indolinone
C	11	3-[4-(trifluoromethyl)benzylidenyl]-5-dibromo-4- methyl-2-indolinone
D	2	3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	3	3-(2,4,6-trihydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	4	3-[(2-nitrothien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
	B B C C C C C C C C C C C C C C C C C C	B 10 B 11 C 2 C 3 C 4 C 5 C 6 C 7 C 8 C 9 C 10 C 11

 		5	3-(4-carboxybenzylidenyl)-5-methylaminosulfonyl-2-
10722	D .	5	indolinone
10722 -	· D	6	3-(2,4-difluorobenzylidenyl)-5-methylaminosulfonyl- 2-indolinone
10722	D	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10722	D	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10722	D	9	3-[(2-nitrothien-4-yI)methylidenyI]-5- methylaminosu!fonyl-2-indolinone
10722	D	10	3-(4-di-n-butylaminobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10722	D	11	3-[4-(trifluoromethyl)benzylidenyl]-5- methylaminosulfonyl-2-indolinone
10722	E	2	3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	3	3-(2,4,6-trihydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	4	3-[(2-nitrothien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	5	3-(4-carboxybenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	6	3-(2,4-difluorobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	. E	9	3-[(2-nitrothien-4-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722	E	10	3-(4-di-n-butylaminobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

## Table 13 (continued)

10722	E	11	3-[4-(trifluoromethyl)benzylidenyl]-5-[4-
10/22			(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10722 -	· F	2	3-(3-t-butyl-4-lydroxy-5-nitrobenzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10722	F	3	3-(2,4,6-trihydroxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	4	3-[(2-nitrothien-5-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	5	. 3-(4-carboxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	6	3-(2,4-difluorobenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10722	F	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10722	F	9	3-[(2-nitrothien-4-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	10	3-(4-di-n-butylaminobenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	F	11	3-[4-(trifluoromethyl)benzylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10722	G	2	3-(3-t-butyl-4-hydroxy-5-nitrobenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10722	G	3	3-(2,4,6-trihydroxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10722	G	4	3-[(2-nitrothien-5-yl)methylidenyl]-5-(2-chloroethyl)- 2-indolinone
10722	G	5	3-(4-carboxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10722	G	6	3-(2,4-difluorobenzylidenyl)-5-(2-chloroethyl)-2- indolinone

160 Table 13 (continued)

10722	G	7	3-(3,5-dimethyl-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10722	G	8	3-(3-t-butyl-5-chloro-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10722	G'	9	3-[(2-nitrothien-4-yl)methylidenyl]-5-(2-chloroethyl)- 2-indolinone
10722	G	10	3-(4-di-n-butylaminobenzylidenyl)-5-(2-chloroethyl)- 2-indolinone
10722	G	11	3-[4-(trifluoromethyl)benzylidenyl]-5-(2-chloroethyl)- 2-indolinone
10723	Ą	2	3-(2,3,4-trihydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10723	A	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5,7-dibromo- 2-indolinone
10723	A	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10723	A	5	3-(3,4-diacetoxybenzylidenyl)-5,7-dibromo-2- indolinone
10723	A	6	3-(4-hydroxy-3-methylbenzylidenyl)-5,7-dibromo-2- indolinone
10723	A	7	3-(2-bromobenzylidenyl)-5,7-dibromo-2-indolinone
10723	A	8	3-(2,4-dihydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10723	A	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5,7-dibromo- 2-indolinone
10723	A	10	3-(3-bromobenzylidenyl)-5,7-dibromo-2-indolinone
10723	A	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10723	В	2	3-(2,3,4-trihydroxybenzylidenyl)-5-iodo-2-indolinone
1	1		1

10723	В	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5-iodo-2- indolinone
10723	В	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5-iodo-2- indolinone
10723	В	5	3-(3,4-diacetoxybenzylidenyl)-5-iodo-2-indolinone
10723	В	6	3-(4-hydroxy-3-methylbenzylidenyl)-5-iodo-2- indolinone
10723	В	7	3-(2-bromobenzylidenyl)-5-iodo-2-indolinone
10723	В	8	3-(2,4-dihydroxybenzylidenyl)-5-iodo-2-indolinone
10,723	В	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5-iodo-2- indolinone
10723	В	10	3-(3-bromobenzylidenyl)-5-iodo-2-indolinone
10723	В	11	3-(3,5-di-t-buty/-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
10723	C .	2	3-(2,3,4-trihydroxybenzylidenyl)-5-bromo-4-methyl- 2-indolinone
10723	С	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10723	С	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10723	С .	5	3-(3,4-diacetoxybenzylidenyl)-5-bromo-4-methyl-2- indolinone
10723	C	6	3-(4-hydroxy-3-methylbenzylidenyl)-5-bromo-4- methyl-2-indolinone
10723	С	7	3-(2-bromobenzylidenyl)-5-bromo-4-methyl-2- indolinone
10723	С	. 8	3-(2,4-dihydroxybenzylidenyl)-5-bromo-4-methyl-2- indolinone

		3-(2-hydroxy-4-methoxybenzylidenyl)-5-bromo-4-
C	Э	methyl-2-indolinone
С	10	3-(3-bromobenzylidenyl)-5-bromo-4-methyl-2- indolinone
С	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
D	2	3-(2,3,4-trihydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	4 .	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	5	3-(3,4-diacetoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	6	3-(4-hydroxy-3-methylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	7	3-(2-bromobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
D	8	3-(2,4-dihydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
D	10	3-(3-bromobenzylidenyl)-5-methylaminosulfonyl-2- Indolinone
D.	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
E	2	3-(2,3,4-trihydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
E	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
		C 10  C 11  D 2  D 3  D 4  D 5  D 6  D 7  D 8  D 9  D 10  D 11  E 2

10723	E	5	3-(3,4-diacetoxybenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	E	6	3-(4-hydroxy-3-methylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	E	7	3-(2-bromobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	Е	8	3-(2,4-dihydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	E	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	E	10	3-(3-bromobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	Е	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10723	F	2	3-(2,3,4-trihydroxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10723	F	3	3-(2-hydroxy-3-methoxybenzylidenyi)-5-(morpholin- 1-yl)aminosulfonyl-2-indolinone
10723	F	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10723	F	5	3-(3,4-diacetoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10723	F	6	3-(4-hydroxy-3-methylbenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10723	F	7	3-(2-bromobenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10723	F	8	3-(2,4-dihydroxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10723	F	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5-(morpholin- 1-yl)aminosulfonyl-2-indolinone
10723	F	10	3-(3-bromobenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone

## Table 13 (continued)

		FT	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5-
10723				(morpholin-1-yl)aminosulfonyl-2-indolinone
10723	-	G	2	3-(2,3,4-trihydroxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10723	3	G	3	3-(2-hydroxy-3-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10723	3	G	4	3-(3-bromo-4,5-dihydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
1072	3	G	5	3-(3,4-diacetoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
1072	3	G	6 .	3-(4-hydroxy-3-methylbenzylidenyl)-5-(2- chloroethyl)-2-indolinone
1072	23	G	7	3-(2-bromobenzylidenyl)-5-(2-chloroethyl)-2- indolinone
1072	23	G	8	3-(2,4-dihydroxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
107	23	G	9	3-(2-hydroxy-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
1072	23	G	10	3-(3-bromobenzylidenyl)-5-(2-chlorcethyl)-2- indolinone
1072	23	G	11	3-(3,5-di-t-butyl-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
107	24	A	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5,7- dibromo-2-indolinone
107	24	A	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5,7-dibromo-2- indolinone
107	724	A	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5,7-dibromo-2- indolinone
10	724	А	5	3-[(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ii]quinolizin-9-yl)methylidenyl]-5,7-dibromo-2- indolinone
10	724	A	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone

## Table 13 (continued)

10724	A	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
10724	A	9	3-[(1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5,7- dibromo-2-indolinone
10724	Α.	10	3-[(2-ethylfuran-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10724	A	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5,7-dibromo-2-indolinone
10724	В	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5-iodo- 2-indolinone
10724	В	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5-iodo-2- indolinone
10724	В	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5-iodo-2- indolinone
10724	В	5	3-{(6-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yI)methylidenyI]-5-iodo-2- indolinone
10724	В	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5-iodo-2- indolinone
10724	В	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5-iodo-2- indolinone
10724	В В	9	3-[[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5- iodo-2-indolinone
10724	В	10	3-[(2-ethylfuran-5-yl)methylidenyl]-5-iodo-2- indolinone
10724	В	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-iodo-2-indolinone
10724	C	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone
10724	С	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5-bromo-4- methyl-2-indolinone
10724	С	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5-bromo-4- methyl-2-indolinone

	10724	С	5	3-{(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yl)methylidenyl}-5-bromo-4- methyl-2-indolinone
	.10724	. C	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5-bromo- 4-methyl-2-indolinone
	10724	С	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
	10724	С	9	3-[[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5- bromo-4-methyl-2-indolinone
	10724	С	10	3-{(2-ethylfuran-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
	10724	С	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
	10724	D	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
	10724	D	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
	10724	D	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
	10724	D .	5	3-[(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
	10724	D	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
	10724	D	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
	10724	D	9	3-[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5- methylaminosulfonyl-2-indolinone
	10724	D	10	3-{(2-ethylfuran-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
	10724	D	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-methylaminosulfonyl-2-indolinone
*	10724	E	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

10724	Ē	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	E	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	E	5	3-[(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	E	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	Е	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	E	9	3-[[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	E	10	3-[(2-ethylfuran-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	·E	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10724	F	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5- (morpholin-1yl)aminosulfonyl-2-indolinone
10724	F	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5-(morpholin- 1yl)aminosulfonyl-2-indolinone
10724	F	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5-(morpholin- 1yl)aminosulfonyl-2-indolinone
10724	F	5	3-[(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yl)methylidenyl]-5-(morpholin- 1yl)aminosulfonyl-2-indolinone
10724	F	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5- (morpholin-1yl)aminosulfonyl-2-indolinone
10724	F	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5-(morpholin- 1yl)aminosulfonyl-2-indolinone
10724	F	9	3-[[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5- (morpholin-1yl)aminosulfonyl-2-indolinone
10724	F	10	3-[(2-ethylfuran-5-yl)methylidenyl]-5-(morpholin- 1yl)aminosulfonyl-2-indolinone

10724	F	11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-(morpholin-1yl)aminosulfonyl-2- indolinone
10724	G	2	3-[(1-dimethylaminonapth-4-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10724	G	3	3-(4-hydroxy-3-nitrobenzylidenyl)-5-(2-chloroethyl)- 2-indolinone
10724	G	4	3-(3-hydroxy-4-nitrobenzylidenyl)-5-(2-chloroethyl)- 2-indolinone
10724	G	5	3-[(8-hydroxy-2,3,6,7-tetrahydro-1H,5H- benzo[ij]quinolizin-9-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10724	G	6	3-(3,5-diisopropyl-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10724	G	7	3-[(benzo[b]furan-2-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10724	G	9	3-[[1-(4-chlorophenyl)pyrrol-2-yl]methylidenyl]-5-(2- chloroethyl)-2-indolinone
10724	G	10	3-[(2-ethylfuran-5-yl)methylidenyi]-5-(2-chloroethyl)- 2-indolinone
10724	, G	. 11	3-[(3,4-dimethylthieno[2,3-b]thien-2- yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
10725	Α .	2	3-[(3-bromothien-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
10725	A	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10725	. A	4	3-[(2-methylfuran-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10725	А	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10725	A	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5,7- dibromo-2-indolinone
10725	A	7	3-[4-(4-formylpiperazin-1-yl)benzylidenyl]-5,7- dibromo-2-indolinone

10725	A	8	3-[4-(morpholin-1-yl)benzylidenyl]-5,7-dibromo-2- indolinone
. 10725 -	- · A	9	3-[[2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]- 5,7-dibromo-4-methyl-2-indolinone
10725	Α	10	3-[[4-bromo-2-(4-chlorophenyl)pyrazol-3- yl]methylidenyl]-5,7-dibromo-4-methyl-2-indolinone
10725	A	11	3-{(imidazol-4-yl)methylidenyl]-5,7-dibromo-4- methyl-2-indolinone
10725	В	2	3-[(3-bromothien-2-yl)methylidenyl]-5-iodo-2- indolinone
10725	В	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5- iodo-2-indolinone
10725	В	4	3-[(2-methylfuran-5-yl)methylidenyl]-5-iodo-2- indolinone
10725	В	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5-iodo-2- indolinone
10725	8	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- iodo-2-indolinone
10725	В	7	3-[4-(4-formylpiperazin-1-yl)benzylidenyl]-5-iodo-2- indolinone
10725	. В	8	3-[4-(morpholin-1-yl)benzylidenyl]-5-iodo-2- indolinone
10725	В	9	3-[(2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- iodo-2-indolinone
10725	В	10	3-[[4-bromo-2-(4-chlorophenyl)pyrazol-3- yl]methylidenyl]-5-iodo-2-indolinone
10725	В	11	3-[(imidazol-4-yl)methylidenyl]-5-iodo-2-indolinone
10725	С	2	3-[(3-bromothien-2-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10725	С	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone

			3-[(2-methylfuran-5-yl)methylidenyl]-5-bromo-4-
10725	С	4	methyl-2-indolinone
10725 -	С	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10725	c ·	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- bromo-4-methyl-2-indolinone
10725	С	7	3-{4-(4-formylpiperazin-1-yl)benzylidenyl]-5-bromo- 4-methyl-2-indolinone
10725	С	8	3-[4-(morpholin-1-yl)benzylidenyl]-5-bromo-4- methyl-2-indolinone
10725	С	9	3-[[2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- bromo-4-methyl-2-indolinone
10725	С	10	3-[(4-bromo-2-(4-chlorophenyl)pyrazol-3- yl]methylidenyl]-5-bromo-4-methyl-2-indolinone
10725	С	11	3-[(imidazol-4-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10725	D	2	3-[(3-bromothien-2-yl)methylidenyl)-5- methylaminosulfonyl-2-indolinone
10725	D	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10725	D	4	3-[(2-methylfuran-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10725	D	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10725	D	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10725	D	7	3-[4-(4-formylpiperazin-1-yl)benzylidenyl]-5- methylaminosulfonyl-2-indolinone
10725	D	8	3-[4-(morpholin-1-yl)benzylidenyl]-5- methylaminosulfonyl-2-indolinone
10725	D	9	3-[[2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- methylaminosulfonyl-2-indolinone

171 Table 13 (continued)

10725	D	10	3-[[4-bromo-2-(4-chlorophenyl)pyrazol-3- yl]methylidenyl]-5-methylaminosulfonyl-2-indolinone
1			yijmetnyiidenyij-5-metnyiaminosulionyi-2-mesimone
. 10725 -	D	11	3-[(imidazol-4-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10725	E	2	3-[(3-bromothien-2-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E	4	3-[(2-methylfuran-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	Ē	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10725	Е	7	3-[4-(4-formylpiperazin-1-yl)benzylldenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E	8	3-[4-(morpholin-1-yl)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E .	9	3-[[2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- [4-(trifiuoromethyl)phenylaminosulfonyl]-2-
10725	E O	10	3-[[4-bromo-2-(4-2hilosophenyl)pyrazol-3- yl]methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	E	11	3-[(imidazol-4-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10725	F	2	3-[(3-bromothien-2-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10725	F .	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10725	F	4	3-[(2-methylfuran-5-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10725	F	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5-(morpholin- 1-yl)sulfonyl-2-indolinone

10725	F	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10725	F	7	3-[4-(4-formylpiperazin-1-yl)benzylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10725.	F	8	3-[4-(morpholin-1-yl)benzylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10725	F	9	3-[(2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10725	F	10	3-[(4-bromo-2-(4-chlorophenyl)pyrezol-3- yl]methylidenyl]-5-(morpholin-1-yl)sulfonyl-2- indolinone
10725	F	11 .	3-[(imidazol-4-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10725	G	2.	3-[(3-bromothien-2-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10725	G	3	3-(2-bromo-6-hydroxy-5-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10725	G	4	3-[(2-methylfuran-5-yl)methylidenyij-5-(2- chloroethyl)-2-indolinone
10725	G	5	3-[(3-methylpyrazol-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10725	G	6	3-(2-hydroxy-6-methoxy-4-methylbenzylidenyl)-5- (2-chloroethyl)-2-indolinone
10725	G	7	3-[4-(4-formylpiperazin-1-yl)benzylidenyl]-5-(2- chloroethyl)-2-indolinone
10725	G	8	3-[4-(morpholin-1-yl)benzylidenyl]-5-(2-chioroethyl)- 2-indolinone
10725	G	9	3-[(2-chloro-4-methoxycarbonyl-3- (methoxycarbonylmethyl)pyrrol-5-yl]methylidenyl]-5- (2-chloroethyl)-2-indolinone
10725	G	10	3-[[4-bromo-2-(4-chlorophenyl)pyrazol-3- yl]methylidenyl]-5-(2-chloroethyl)-2-indolinone
10725	G	11	3-{(imidazol-4-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
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Table 13
(continued)

10726	Α	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3-
			methylpyrrol-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10726	A	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5,7- dibromo-2-indolinone
10726	A	5	3-[(2-bromofuran-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10726	A	6	3-[(1,3-dimethylpyrrol-4-yl)methylidenyl]-5,7- dibromo-2-indolinone
10726	A	7	3-[(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6-yl)methylidenyl]-5,7-dibromo-2-indolinone
10726	A	8	3-(5-fluoro-2-oxindol-3-idenyl)-5,7-dibromo-2- indolinone
10726	A	9	3-(2-oxindol-3-idenyl)-5,7-dibromo-2-indolinone
10726	A	10	3-[(2-ethylthien-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
10726	A	. 11	3-(4-methoxybenzylidenyl)-5,7-dibromo-2- indolinone
10726	В	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3-methylpyrrol-5-yl)methylidenyl]-5-iodo-2-indolinone
10726	В	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5- iodo-2-indolinone
10726	В	5	3-[(2-bromofuran-5-yl)methylidenyl]-5-iodo-2- indolinone
10726	В	6	3-{(1,3-dimethylpyrrol-4-yl)methylidenyl]-5-iodo-2- indolinone
10726	В	7	3-[(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6- yl)methylidenyl]-5-iodo-2-indolinone
10726	В	8	3-(5-fluoro-2-oxindol-3-idenyl)-5-iodo-2-indolinone
10726	В	9	3-[(2-oxindol-3-idenyl)methylidenyl]-5-iodo-2- indolinone

10726	В	10	3-[(2-ethylthien-5-yl)methylidenyl]-5-iodo-2- indolinone
.10726 -	В	11	3-(4-methoxybenzylidenyl)-5-iodo-2-indolinone
10726	С	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3- methylpyrrol-5-yl)methylidenyl]-5-bromo-4-methyl- 2-indolinone
10726	C .	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5- bromo-4-methyl-2-indolinone
10726	С	5	3-[(2-bromofuran-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10726	С	6	3-[(1,3-dimethylpyrrol-4-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10726	С	7	3-[(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6- yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
10726	С	8	3-(5-fluoro-2-oxindol-3-idenyl)-5-bromo-4-methyl-2- indolinone
10726	С	9	3-(2-oxindol-3-idenyl)-5-bromo-4-methyl-2- indolinone
10726	С	10	3-[(2-ethylthien-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10726	С	11	3-(4-methoxybenzylidenyl)-5-bromo-4-methyl-2- indolinone
10726	D	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3- methylpyrrol-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10726	D	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10726	D	5	3-[(2-bromofuran-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10726	D	6	3-[(1,3-dimethylpyrrol-4-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10726	D	7	3-[(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6- yl)methylidenyl]-5-methylaminosulfonyl-2-indolinone

	DT	8	3-(5-fluoro-2-oxindol-3-idenyl)-5-
10726	ט	•	methylaminosulfonyl-2-indolinone
10726	D	9	3-(2-oxindol-3-idenyl)-5-methylaminosulfonyl-2- indolinone
10726	D .	10	3-[(2-ethylthien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10726	D	11	3-(4-methoxybenzylidenyl)-5-methylaminosulfonyl- 2-indolinone
10726	Е	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3- methylpyrrol-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl)-2-indolinone
10726	E	5	3-[(2-bromofuran-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	6	3-[(1,3-dimethylpyrrol-4-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	7	3-[(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6- yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	8	· 3-(5-fluoro-2-oxindol-3-idenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	9	3-(2-oxindol-3-idenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	10	3-[(2-ethylthien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	E	11	3-(4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10726	F	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3- methylpyrrol-5-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10726	F	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10726	F	5	3-[(2-bromofuran-5-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone

10726	F	6	3-[(1,3-dimethylpyrrol-4-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10726	. F	7	3-{(5,8-dihydroxy-1,2,3,4-tetrahydronapth-6- yl)methylidenyl]-5-(morpholin-1-yl)sulfonyl-2- indolinone
10726	F	8	3-(5-fluoro-2-oxindol-3-idenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10726	F	9	3-(2-oxindol-3-idenyl)-5-(morpholin-1-yl)sulfonyl-2- indolinone
10726	F	10	3-[(2-ethyllthien-5-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10726	F	11	3-(4-methoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10726	G	3	3-[(2-ethoxycarbonyl-4-methoxycarbonyl-3- methylpyrrol-5-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
10726	G	4	3-(3-t-butyl-4-hydroxy-5-methylbenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10726	G	5	3-{(2-bromofuran-5-yI)methylidenyI]-5-(2- chloroethyI)-2-indolinone
10726	G .	6	3-{(1,3-dimethylpyrrol-4-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10726	G	7	3-[(5,8-dihydroxy-1,2,3,4-letrahydronapth-6- yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
10726	G	8	3-(5-fluoro-2-oxindol-3-idenyl)-5-(2-chloroethyl)-2- indolinone
10726	G .	9	3-(2-oxindol-3-idenyl)-5-(2-chloroethyl)-2-indolinone
10726	G	10	3-{(2-ethylthien-5-yl)methylidenyl]-5-(2-chloroethyl)- 2-indolinone
10726	G	11	3-(4-methoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10727	A	2	3-(4-diethylaminobenzylidenyl)-5,7-dibromo-2- indolinone

177 Table 13 (continued)

. 1072	27	A	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyl]-5,7-dibromo- 2-indolinone
107	27 -	A	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5,7- dibromo-2-indolinane
107	27	A	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5,7- dibromo-2-indolinone
107	727	A	6	3-[(5-chlorobenzodioxolan-6 yl)methylidenyl]-5,7- dibromo-2-indolinone
107	727	Α	7	3-[(1,4-benzopyranon-3 yl)methylidenyl]-5,7- dibromo-2-indolinone
10	727	Α	8	3-(3-cyanobenzylidenyl)-5,7-dibromo-2-indolinone
10	727	A	9	3-(4-cyanobenzylidenyl)-5,7-dibromo-2-indolinone
10	727	Α	10	3-(2,5-dihydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10	0727	Α	11	3-(2,3-dimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
10	0727	В	2	3-(4-diethylaminobenzylidenyl)-5-iodo-2-indolinone
1	0727	В	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyi]-5-iodo-2- indolinone
1	10727	В	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5-iodo- 2-indolinone
-	10727	В	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5-iodo- 2-indolinone
-	10727	В	6	3-[(5-chlorobenzodioxolan-6-yl)methylidenyl]-5- iodo-2-indolinone
-	10727	В	7	3-[(1,4-benzopyranon-3-yl)methylidenyi]-5-iodo-2- indolinone
-	10727	В	8	3-(3-cyanobenzylidenyl)-5-iodo-2-incolinone
		- 1		

			3-(4-cyanobenzylidenyl)-5-iodo-2-indolinone
10727	В	9	3-(4-cyanobenzylidenyl)-5-lodd-2-incollinorie
10727	В	10	3-(2,5-dihydroxybenzylidenyl)-5-iodo-2-indolinone
10727	В	11	3-(2,3-dimethoxybenzylidenyl)-5-iodo-2-indolinone
10727	"		5 (2,5-6)methoxy contay noonly 17 5 1666 2 means
1 .			
10727	С	2	3-(4-diethylaminobenzylidenyl)-5-bromo-4-methyl- 2-indolinone
	1		2-indolinone
10727	c	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyl]-5-bromo-4-
10727	"	Ū	methyl-2-indolinone
1			
10727	С	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
			biomo-4-methyl-2-indolinorie
10727	С	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5-
10727			bromo-4-methyl-2-indolinone
1	1		
10727	C	6	3-[(5-chlorobenzodioxolan-6-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone
}			bromo-4-metriyi-2-indoimone
10727	- c	7	3-[(1,4-benzopyranon-3-yl)methylidenyl]-5-bromo-4-
10727		i i	methyl-2-indolinone
10727	С	8	3-(3-cyanobenzylidenyl)-5-bromo-4-methyl-2- indolinone
		١.	incomore.
10727	- c	9	3-(4-cyanobenzylidenyl)-5-bromo-4-methyl-2-
			indolinone
10727	C	10	3-(2,5-dihydroxybenzylidenyl)-5-bromo-4-methyl-2- indolinane
10727	<del>  c</del>	11	3-(2,3-dimethoxybenzylidenyl)-5-bromo-4-methyl-2-
			indolinone
			0 (4 4) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10727	D	2	3-(4-diethylaminobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
	1		
10727	D	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyl]-5-
1			methylaminosulfonyl-2-indolinone
	1		5 11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
10727	D	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone

10727	D	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5- methylaminosulfonyl-2-indolinone
10727 .	D	6	3-[(5-chlorobenzodioxolan-6-yl)methyldenyl]-5- methylaminosulfonyl-2-indolinone
10727	D	7	3-[(1,4-benzopyranon-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10727	D	8	3-(3-cyanobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
10727	D	9	3-(4-cyanobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
10727	D	10	3-(2,5-dihydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10727	D	11	3-(2,3-dimethoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10727	E	2	3-(4-diethylaminobenzylidenyl)-5-{4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	6	3-{(5-chlorobenzodioxolan-6-yl)methylidenyl]-5-{4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	7	3-[(1,4-benzopyranon-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	8	3-(3-cyanobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	9	3-(4-cyanooenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727	E	10	3-(2,5-dihydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

180 Table 13 (continued)

			2 (2 2 dimethers hearthide will 5 (4
10727	E	11	3-(2,3-dimelhoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10727 -	. F	2	3-(4-diethylaminobenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10727	F '	3	3-[{2,4-diethylpyrrol-5-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10727	F	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10727	F	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10727	F	6	3-[(5-chlorobenzodioxolan-6-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10727	F	7	3-[(1,4-benzopyranon-3-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10727	F	8	3-(3-cyanobenzylidenyl)-5-(morpholin-1-yl)sulfonyl- 2-indolinone
10727	F	9	3-(4-cyanobenzylidenyl)-5-(morpholin-1-yl)sulfonyl- 2-indolinone
10727	F	10	3-(2,5-dihydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10727	F	11	3-(2,3-dimethoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10727	G	2	3-(4-diethylaminobenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10727	G	3	3-[(2,4-diethylpyrrol-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10727	G	4	3-(3-bromo-5-chloro-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10727	G	5	3-[2-(4-chlorophenylmercapto)benzylidenyl]-5-(2- chloroethyl)-2-indolinone
10727	G	6	3-[(5-chlorobenzodioxolan-6-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone

10727	G	7	3-[(1,4-benzopyranon-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
.10727 -	G	8	3-(3-cyanobenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10727	G	9	3-(4-cyanobenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10727	G	10	3-(2,5-dinydroxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10727	G	11	3-(2,3-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10728	A	2	3-(2,5-dimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
10728	A	3	3-(2,6-dimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
10728	A	4	3-(3,5-dimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
10728	A	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10728	Α .		3-[(fluoren-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
10728	A	7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5,7- dibromo-2-indolinone
10728	A	8	3-[2-fluoro-5-(trifluoromethyl)benzylidenyl]-5,7- dibromo-2-indolinone
10728	A	9	3-[2-fluoro-6-(trifluoromethyl)benzylidenyl]-5,7- dibromo-2-indolinone
10728	Α	10	3-(2-carboxymethoxybenzylidenyl)-5,7-dibromo-2- indolinone
10728	A	11	3-[(4-methoxybenzodioxolan-6-yl)methylidenyl]-5,7- dibromo-2-indolinone
10728	В	2	3-(2,5-dimethoxybenzylidenyl)-5-iodo-2-indolinone



		3	3-(2,6-dimethoxybenzylidenyl)-5-iodo-2-indolinone
. 10728	В	3	3-(2,0-difficulty) being yill delity) bridge a market
		4	3-(3,5-dimethoxybenzylidenyl)-5-iodo-2-indolinone
10728 -	В	4	5-(5,5-difficulty) benzy fiderity if a 1000 a
	1		
	<del>   </del>	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5-iodo-
10728	6	5	2-indolinone
	1 1		
,		6	3-[(fluoren-2-yl)methylidenyl]-5-iodo-2-indolinone
10728	В	0	3-[(iiddreii-2-yi)mearyideiiyi] o iooo = iii
	1 1		
		7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5-iodo-2-
10728	В	,	indolinone
ļ	1		
			3-[2-fluoro-5-(trifluoromethyl)benzylidenyl]-5-iodo-2-
10728	В	8	indolinone
	1		indolinone
	1 .		The state of the s
10728	В	9 ·	3-[2-fluoro-6-(trifluoromethyl)benzylidenyl]-5-iodo-2- indolinone
	1	ł	indolinone
1	1		n 6 : 4- 0
10728	В	10	3-(2-carboxymethoxybenzylidenyl)-5-iodo-2-
		1	indolinone
1	1	1	
10728	В	11	3-[(4-methoxybenzodioxolan-6-yl)methylidenyl]-5-
	1		iodo-2-indolinone
1	1		
10728	C	2	3-(2,5-dimethoxybenzylidenyl)-5-bromo-4-methyl-2-
	1		indolinone
1	1	1 -	
10728	C	3	3-(2,6-dimethoxybenzylidenyl)-5-bromo-4-methyl-2-
10.20			indolinone
	1		
10728	- C	4	3-(3,5-dimethoxybenzylidenyl)-5-bromo-4-methyl-2-
10720	"		indolinone
1		1	
10728	c	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5-
10720	"		bromo-4-methyl-2-indolinone
	1	1	
10728	- C	6	3-[(fluoren-2-yl)methylidenyl]-5-bromo-4-methyl-2-
10720	1	1	indolinone
10728		7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5-bromo-
10/28		1 '	4-methyl-2-indolinone
1		i	
		8	3-[2-fluoro-5-(trifluoromethyl)benzylidenyl]-5-bromo-
10728	С	1 °	4-methyl-2-indolinone
1.0	1	1	

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10728	E	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728 -	E	6	3-{(fluoren-2-yl)methylidenyl)-5-{4-
.,,,,,,,			(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728	E	7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728	E	8	3-[2-fluoro-5-(trifluoromethyl)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728	E	9	3-[2-fluoro-6-(trifluoromethyl)benzylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728	E	10	3-(2-carboxymethoxybenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10728	E	11	3-[(4-methoxybenzodioxolan-6-yl)methylidenyl]-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10728	F	2	3-(2,5-dimethoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10728	F	3	3-(2,6-dimethoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10728	F	4	3-(3,5-dimethoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10728	F	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10728	F	6	3-[(fluoren-2-yl)methylidenyl]-5-(mo:pholin-1- yl)aminosulfonyl-2-indolinone
10728	F.	7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5- (morpholin-1-yl)aminc.sulfonyl-2-incolinone
10728	F	8	3-(2-fluoro-5-(trifluoromethyl)benzylidenyl)-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10728	F	9	3-(2-fluoro-6-(trifluoromethyl)benzylidenyl]-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10728	F	10	3-(2-carboxymethoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone

10728	F	11 3	3-[(4-methoxybenzodioxolan-6-yl)methylidenyl]-5- (morpholin-1-yl)aminosulfonyl-2-indolinone
10728	G	2 3	3-(2,5-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10728	G.		3-(2,6-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10728	G		3-(3,5-dimethoxybenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10728	G	5	3-(4-dimethylamino-2-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10728	G	6	3-[(fluoren-2-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
10728	G	7	3-[2-fluoro-3-(trifluoromethyl)benzylidenyl]-5-(2- chloroethyl)-2-indolinone
10728	G	8	3-[2-fluoro-5-(trifluoromethyl)benzylidenyl]-5-(2- chloroethyl)-2-indolinone
10728	G	9	3-[2-fluoro-6-(trifluoromethyl)benzylidenyl]-5-(2- chloroethyl)-2-indolinone
10728	G	10	3-(2-carboxymethoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10728	G	11	3-[(4-methoxybenzodioxolan-6-yl)methylidenyl]-5- (2-chloroethyl)-2-indolinone
10729	Α	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10729	A	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10729	A	4	3-(4-methylmercaptobenzylidenyl)-5,7-dibromo-2- indolinone
10729	A	5	3-[(3-methylthien-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
· 10729	A	6	3-(3-phenoxybenzylidenyl)-5,7-dibromo-2- indolinone

186 Table 13 (continued)

10729	Α	7	3-[(pyrid-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
		8	3-[(pyrid-3-yl)methylidenyl]-5,7-dibromo-2-
10729 -	A	•	indolinone
10729	A	9	3-[(pyrid-4-yl)methylidenyl]-5,7-dibromo-2- indolinone
10729	A	10	3-[4-(pyrralidin-1-yl)benzylidenyl]-5,7-dibromo-2- indolinone
10729	A	11	3-[(cyclohexen-3-yl)methylidenyl]-5,7-dibromo-2- indolinone
10729	В	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-iodo-2- indolinone
10,729	В	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5-iodo-2- indolinone
10729	В	4	3-(4-methylmercaptobenzylidenyl)-5-iodo-2- indolinone
10729	В	5	3-[(3-methylthien-2-yl)methylidenyl]-5-iodo-2- indolinone
10729	8	-	3-(3-phenoxybenzylidenyl)-5-iodo-2-indolinone
10729	В	7	3-[(pyrid-2-yl)methylidenyl]-5-iodo-2-indolinone
10729	В		3-[(pyrid-3-yl)methylidenyl]-5-iodo-2-indolinone
10729	В	9	3-[(pyrid-4-yl)methylidenyl]-5-iodo-2-indolinone
10729	В	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-iodo-2- indolinone
10729	В	11	3-[(cyclohexen-3-yl)methylidenyl]-5-iodo-2- indolinone
10729	С	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone

10729	c	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10729	С	4	3-(4-methylmercaptobenzylidenyl)-5-bromo-4- methyl-2-indolinone
10729	С	5	3-[(3-methylthien-2-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10729	С	6	3-(3-phenoxybenzylidenyl)-5-bromo-4-methyl-2- indolinone
10729	С	7	3-[(pyrid-2-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	8	3-[(pyrid-3-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	9	3-[(pyrid-4-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	10.	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-bromo-4- methyl-2-indolinone
10729	С	11	3-[(cyclohexen-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10729	D	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10729	D		3-[(1-methoxynapth-4-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10729	D	4	3-(4-methylmercaptobenzylidenyi)-5- methylaminosulfonyl-2-indolinone
10729	D	5	3-[(3-methylthien-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10729	D	6	3-(3-phenoxybenzylidenyl)-5-methylaminosulfonyl- 2-indolinone
10729	D	7	3-[(pyrid-2-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
10729	D	8	3-[(pyrid-3-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone

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Table 13
(continued)

10729	Α	7	3-[(pyrid-2-yl)methylidenyl]-5,7-dibromo-2- indolinone
		ļ	
10729 _	Α	8	3-[(pyrid-3-yl)methylidenyl]-5,7-dibromo-2- indolinone
10729	A	9	3-{(pyrid-4-yl)methylidenyl]-5,7-dibromo-2- indolinone
10729	A	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5,7-dibromo-2- indolinone
10729	A	11	3-[(cyclohexen-3-yl)methylidenyl]-5,7-dibromo-2- indolinone
10729	В	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-iodo-2- indolinone
10729	В	3	3-[(1-methoxynapth-4-yi)methylidenyi]-5-iodo-2- indolinone
10729	В	4	3-(4-methylmercaptobenzylidenyl)-5-iodo-2- indolinone
10729	В	5	3-[(3-methylthien-2-yl)methylidenyl]-5-iodo-2- indolinone
10729	В	6	3-(3-phenoxybenzylidenyl)-5-iodo-2-indolinone
10729	В	7	3-[(pyrid-2-yl)methylidenyl]-5-iodo-2-indolinone
10729	8	8	3-[(pyrid-3-yl)methylidenyl]-5-iodo-2-indolinone
10729	В	9	3-[(pyrid-4-yl)methylidenyl]-5-iodo-2-indolinone
10729	В	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-iodo-2- indolinone
10729	В	11	3-{{cyclohexen-3-yl}methylidenyl}-5-iodo-2- indolinone
10729	С	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone

			3-[(1-methoxynapth-4-yl)methylidenyl]-5-bromo-4-
10729	С	3	methyl-2-indolinone
10729 -	С	4	3-(4-methylmercaptobenzylidenyl)-5-bromo-4- methyl-2-indolincne
10729	С	5	3-{(3-methylthien-2-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10729	С	6	3-(3-phenoxybenzylidenyl)-5-bromo-4-methyl-2- indolinone
10729	С	7	3-[(pyrid-2-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	8	3-[(pyrid-3-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	9	3-{(pyrid-4-yl)methylidenyl]-5-bromo-4-methyl-2- indolinone
10729	С	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-bromo-4- methyl-2-indolinone
10729	С	11	3-[(cyclohexen-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10729	D	2	3-[(2-methoxynapth-1-yl)methylidenyi]-5- methylaminosulfonyl-2-indolinone
10729	D	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10729	D	4	3-(4-methylmercaptobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10729		5	3-[(3-methylthien-2-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10729	D	6	3-(3-phenoxybenzylidenyl)-5-methylaminosulfonyl- 2-indolinone
10729	D	7	3-[(pyrid-2-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone
10729	D	8	3-[(pyrid-3-yl)methylidenyl]-5-methylaminosulfonyl- 2-indolinone



	DI	9	3-[(pyrid-4-yl)methylidenyl]-5-methylaminosulfonyl-
10729		9	2-indolinone
10729 -	D	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-
10/29 7		10	methylaminosulfonyl-2-indolinone
			3-[(cyclohexen-3-yl)methylidenyl]-5-
10729	D.	11	methylaminosulfonyl-2-indolinone
1	1		mediylaminosunoriyi-2-indomoric
· · · · ·			
10729	E	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-[4-
ł			(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	i i		
10729	E	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5-[4-
10/29	-	J	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1 1		(amosi sinosi yi)
			6 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
10729	E	4	3-(4-methylmercaptobenzylidenyl)-5-[4-
	1 1		(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	!		
10729	E	5	3-[(3-methylthien-2-yl)methylidenyl]-5-[4-
10723	-	_	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
}			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			3-(3-phenoxybenzylidenyl)-5-[4-
10729	E	6	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
			(trilluorometriyi)prienylaminosunonyij-2-indomiene
10729	E	7	3-[(pyrid-2-yl)methylidenyl]-5-[4-
1	1	1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1	l	
10729	E	8	3-[(pyrid-3-yl)methylidenyl]-5-[4-
10729	1		(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
			,,,,
		L'	3-[(pyrid-4-yl)methylidenyl]-5-[4-
10729	E	9	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1		(trilluoromethyl)phenylaminosulonylj-z-mosimone
	1		
10729	ΙE	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-[4-
	ì	1	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1	1	
10729	E	11	3-[(cyclohexen-3-yl)methylidenyl]-5-[4-
10729	-	1 ''	(trifluoromethyl)phenylaminosulfonyl]-2-indolinone
	1		(Cincerentary), pro-y-
			The state of the s
10729	F	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-
	1		(morpholin-1-yl)aminosulfonyl-2-indolinone
1		1	·
10729	F	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5-
10729			(morpholin-1-yl)aminosulfonyl-2-indolinone
	1	1	
			3-(4-methylmercaptobenzylidenyl)-5-(morpholin-1-
10729	F	4	yl)aminosulfonyl-2-indolinone
1	- 1	1	yijaniinosunonyi-2-indomione
	1	1	

10729	F	5	3-[(3-methylthien-2-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
.10729 _	F	6	3-(3-phenoxybenzylidenyl)-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	F	7	3-[(pyrid-2-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	F	8	3-[(pyrid-3-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	F	9	3-[(pyrid-4-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	F	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	F	11	3-[(cyclohexen-3-yl)methylidenyl]-5-(morpholin-1- yl)aminosulfonyl-2-indolinone
10729	G	2	3-[(2-methoxynapth-1-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10729	G	3	3-[(1-methoxynapth-4-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10729	G .	4	3-(4-methylmercaptobenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10729	G	5	3-[(3-methylthien-2-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10729	G	6	3-(3-phenoxybenzylidenyi)-5-(2-chloroethyl)-2- indolinone
10729	G	7	3-[(pyrid-2-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
10729	G	8	3-[(pyrid-3-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
10729	G	9	3-[(pyrid-4-yl)methylidenyl]-5-(2-chloroethyl)-2- indolinone
10729	G	10	3-[4-(pyrrolidin-1-yl)benzylidenyl]-5-(2-chloroethyl)- 2-indolinone

1	0729	G	11	3-[(cyclohexen-3-yl)methylidenyl]-5-(2-chloroethyl)- 2-indolinone
	10730 -	A	2	3-(2,3,4-trimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
-	10730	A	3	3-(2,4,5-trimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
-	10730	A	4	3-(3,4,5-trimethoxybenzylidenyl)-5,7-dibromo-2- indolinone
	10730	A	5	3-[(1-acetylindol-3-yl)methylidenyl]-5,7-dibromo-2- indolinone
	10730	А	6 .	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]- 5,7-dibromo-2-indolinone
	10730	A	7:	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5,7- dibromo-2-indolinone
$\vdash$	10730	A	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5,7-dibromo- 2-indolinone
-	10730	A	9	3-[(6,8-dibromo-1,4-benzofuranon-3- y1)methylidenyl]-5,7-dibromo-2-indolinone
	10730	A	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5,7-dibromo-2-indolinone
-	10730	A	11	3-[(2,3-dimethylfuran-5-yl)methylidenyl]-5,7- dibromo-2-indolinone
	10730	В	2	3-(2,3,4-trimethoxybenzylidenyl)-5-iodo-2- indolinone
	10730	В	3	3-(2,4,5-trimethoxybenzylidenyl)-5-iodo-2- indolinone
-	10730	В	4	3-(3,4,5-trimethoxybenzylidenyl)-5-iodo-2- indolinone
	10730	В	5	3-[(1-acetylindol-3-yI)methylidenyl]-5-iodo-2- indolinone
-	10730	В	6	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]-5- iodo-2-indolinone

193 Table 13 (continued)

10730	В	7	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5- iodo-2-indolinone
10730	В	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5-iodo-2- indolinone
10730	В	9	3-[(6,8-dibromo-1,4-benzofuranon-3- yl)methylidenyl]-5-iodo-2-indolinone
10730	В	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5-iodo-2-indolinone
10730	В	11	3-[(2,3-dimethylfuran-5-yl)methylidenyl]-5-iodo-2- indolinone
10730	С	2	3-(2,3,4-trimethoxybenzylidenyl)-5-bromo-4-methyl- 2-indolinone
10730	С	3	3-(2,4,5-trimethoxybenzylidenyl)-5-bromo-4-methyl- 2-indolinone
10730	С	4	3-(3,4,5-trimethoxybenzylidenyl)-5-bromo-4-methyl- 2-indolinone
10730	С	5	3-[(1-acetylindol-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10730	С	6	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone
10730	С	7	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5- bromo-4-methyl-2-indolinone
10730	c	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10730	С	9	3-[(6,8-dibromo-1,4-benzofuranon-3- yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
10730	C	10	3-[(2,5-dimethoxytetrahydrofuran-3-yl)methylidenyl]-5-bromo-4-methyl-2-indolinone
10730	C	11	3-[(2,3-dimethylfuran-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10730	D	2	3-(2,3,4-trimethoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone

10730	D	3	3-(2,4,5-trimethoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10730 -	D	4	3-(3,4,5-trimethoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10730	D	5	3-[(1-acetylindol-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10730	D	6	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10730	D	7	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5- methylaminosulfonyl-2-indolinone
10730	D	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10730	D	9	3-[(6,8-dibromo-1,4-benzofuranon-3- yl)methylidenyl]-5-methylaminosulfonyl-2- indolinone
10730	D	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5-methylaminosulfonyl-2- indolinone
10730	D	11	3-[(2,3-dimethylfuran-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10730	E		3-(2,3,4-trimethoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	E	3	3-(2,4,5-trimethoxybenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	E	4	3-(3,4,5-trimethoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	E	5	3-[(1-acetylindol-3-yl)methylidenyl]-5-[4- (trifiuoromethyl)phenylaminosulfonyl]-2-indolinone
10730	E	6	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10730	E	7	3-[2-{(2-chlorophenyl)furan-5-yl]methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	E	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

10730	TEI	9	3-[(6,8-dibromo-1,4-benzofuranon-3-
10.00			yl)metnylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730 -	E	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	Ε'	11	3-{(2,3-dimethylfuran-5-yl)methylidenyl]-5-{4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10730	F	2	3-(2,3,4-trimethoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10730	F	3	3-(2,4,5-trimethoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10730	F	4	3-(3,4,5-trimethoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10730	F	5	3-[(1-acetylindol-3-yl)methylidenyl]-5-(morpholin-1- yl)sulfonyl-2-indolinone
10730	F	6	3-[(6-chloro-1,4-benzofuranon-3-yi)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10730	F	7	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10730	F	8	3-{(2-chloroquinolin-3-yl)methylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10730	F	9	3-[(6,8-dibromo-1,4-benzofuranon-3- yl)methylidenyl]-5-(morpholin-1-yl)sulfonyl-2- indolinone
10730	F	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5-(morpholin-1-yl)sulfonyl-2- indolinone
10730	F	11	3-{(2,3-dimethylfuran-5-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10730	G	2	3-(2,3,4-trimethoxybenzylidenyl)-5-(2-chioroethyl)- 2-indolinone
10730	G	3	3-(2,4,5-trimethoxybenzylidenyl)-5-(2-chloroethyl)- 2-indolinone
10730	G	4	3-(3,4,5-trimethoxybenzylidenyl)-5-(2-chloroethyl)- 2-indolinone

10730	G	5	3-[(1-acetylindol-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10730 _	G	6	3-[(6-chloro-1,4-benzofuranon-3-yl)methylidenyl]-5- (2-chloroethyl)-2-indolinone
10730	G	7	3-[2-[(2-chlorophenyl)furan-5-yl]methylidenyl]-5-(2- chloroethyl)-2-indolinone
10730	G	8	3-[(2-chloroquinolin-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10730	G	9	3-[(6,8-dibromo-1,4-benzofuranon-3- yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
10730	G	10	3-[(2,5-dimethoxytetrahydrofuran-3- yl)methylidenyl]-5-(2-chloroethyl)-2-indolinone
10,730	G	11	3-[(2,3-dimethylfuran-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10731	А	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10731	Α	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5,7-dibromo-2-indolinone
10731	Α .	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]- 5,7-dibromo-2-indolinone
10731	A	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5,7-dibromo-2-indolinone
. 10731	, A	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5,7- dibromo-2-indolinone
10731	A	7	3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5,7- dibromo-2-indolinone
10731	A	8	3-[(pyrimid-2,4-dion-5-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10731	A	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5,7-dibromo- 2-indolinone
10731	A	10	3-(1-methyl-2-oxindol-3-idenyl)-5,7-dibromo-2- indolinone

10731	A	11	3-[2-[2-(nitrophenyl)furan-5-yl]methylidenyl]-5,7-
10,0,			dibromo-2-indolinone
10731 -	8	2	3-[(9-ethylca:bazol-3-yl)methylidenyl)-5-iodo-2- indolinone
10731	В	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-iodo-2-indolinone
10731	В	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- iodo-2-indolinone
10731	В	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5-iodo-2-indolinone
10731	В	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- iodo-2-indolinone
10731	В	7.	3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5- iodo-2-indolinone
10731	В	8	3-{(pyrimid-2,4-dion-5-yl)methylidenyl]-5-iodo-2- indolinone
10731	В	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5-iodo-2- indolinone
10731	В	10	3-(1-methyl-2-oxindol-3-idenyl)-5-iodo-2-indolinone
10731	В	11	3-[2-(2-(nitrophenyl)furan-5-yl]methylidenyl]-5-iodo- 2-indolinone
10731	c	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10731	C	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-bromo-4-methyl-2-indolinone
10731	С	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- bromo-4-methyl-2-indolinone
10731	C	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5-bromo-4-methyl-2-indolinone
10731	C	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- bromo-4-methyl-2-indolinone

198 Table 13 (continued)

			3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5-
10731	С	7	bromo-4-methy1-2-indolinone
10731	С	8	3-[(pyrimid-2,4-dion-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10731	С	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10731	С	10	3-(1-methyl-2-oxindol-3-idenyl)-5-bromo-4-methyl- 2-indolinone
10731	С	11	3-[2-[2-(nitrophenyl)furan-5-yl]methylidenyl]-5- bromo-4-methyl-2-indolinone
10731	D.	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	D	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-methylaminosulfonyl-2-indolinone
10731	D	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	D	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5-methylaminosulfonyl-2-indolinone
10731	D	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinche
10731	D	7	3-[(ö-nitro-1,4-benzopyron-3-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	D	8	3-[(pyfimid-2,4-dion-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	D	9	3-[(5-methoxyindol-3-yI)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	D .	10	3-(1-methyl-2-oxindol-3-idenyl)-5- methylaminosulfonyl-2-indolinone
10731	D .	11	3-[2-[2-(nitrophenyl)furan-5-yl]methylidenyl]-5- methylaminosulfonyl-2-indolinone
10731	E	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

10731	E	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-[4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10731 -	E	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10731	E	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]-     5-[4-(trifluoromethyl)phenylaminosulfonyl]-2-     indolinone
10731	E	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- [4-(trifluoromethyl)phenylaminosulfonyl]-2- indolinone
10731	Ε	7	3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10731	Ε	8	3-[(pyrimid-2,4-dion-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10731	E	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10731	E	10	3-(1-methyl-2-oxindol-3-idenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10731	E	11	3-[2-(2-(nitrophenyl)furan-5-yl]methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10731	F	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5-(morpholin- 1-yl)sulfonyl-2-indolinone
10731	F	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-(morpholin-1-yl)sulfonyl-2-indolinone
10731	F	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10731	F	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5-(morpholin-1-yl)sulfonyl-2-indolinone
10731	F	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10731	F	7	3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10731	F	8	3-[(pyrimid-2,4-dion-5-yl)methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone

10731	F	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5-(morpholin- 1-yl)sulfonyl-2-indolinone
10731 _	F	10	3-(1-methyl-2-oxindol-3-idenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10731	F.	11	3-[2-[2-(nitrophenyl)furan-5-yl]methylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
10731	G	2	3-[(9-ethylcarbazol-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10731	G	3	3-[(6,7-dimethyl-1,4-benzopyron-3-yl)methylidenyl]- 5-(2-chloroethyl)-2-indolinone
10731	G	4	3-[[4-(propen-2-yl)cyclohexen-1-yl]methylidenyl]-5- (2-chloroethyl)-2-indolinone
10731	G	5	3-[(6-isopropyl-1,4-benzopyron-3-yl)methylidenyl]- 5-(2-chloroethyl)-2-indolinone
10731	G	6	3-[(6-methyl-1,4-benzopyron-3-yl)methylidenyl]-5- (2-chloroethyl)-2-indolinone
. 10731	G	7	3-[(6-nitro-1,4-benzopyron-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10731	G	- 8	3-[(pyrimid-2,4-dion-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10731	G	9	3-[(5-methoxyindol-3-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone
10731	G	10	3-(1-methyl-2-oxindol-3-idenyl)-5-(2-chloroethyl)-2- indolinone
10731	G	11	3-[2-[2-(nitrophenyl)furan-5-yl]methylidenyl]-5-(2- chloroethyl)-2-indolinone
10732	A	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5,7- dibromo-2-indolinone
10732	A	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10732	A	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5,7- dibromo-2-indolinone

10732	A	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5,7-dibromo-2- indolinone
10732 _	Α	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5,7-dibromo- 2-indolinone
10732	A	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10732	A	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5,7- dibromo-2-indolinone
10732	A	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10732	A	10	3-(4-benzyloxy-5-t-butyl-3-chlorobenzylidenyl)-5,7- dibromo-2-indolinone
10732	A	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10732	В	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5- iodo-2-indolinone
10732	В	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5-iodo-2- indolinone
10732	В .	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5-iodo-2- indolinone
10732	В	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5-iodo-2- indolinone
10732	В	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5-iodo-2- indolinone
10732	В	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5- iodo-2-indolinone
10732	В	. 8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5- iodo-2-indolinone
10732	В	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5- iodo-2-indolinone
10732	В	10	3-(4-benzyloxy-5-(-butyl-3-chlorobenzylidenyl)-5- iodo-2-indolinone

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10732	В	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5-iodo- 2-indolinone
10732 _	С	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5- bromo-4-methyl-2-indolinone
10732	С	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10732	С	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5-bromo-4- methyl-2-indolinone
10732	С	-7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	10	3-(4-benzyloxy-5-t-butyl-3-chlorobenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	С	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
10732	D	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5- methylaminosulfonyl-2-indolinone
10732	D	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	D	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	D	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	· D	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone

203 Table 13 (continued)

10732	D	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	D	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	D	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
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10732	D	10	3-(4-benzyloxy-5-t-butyl-3-chlorobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	D	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10732	E	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	4	3-(3,5-diisopropyl-4-phenoxybenzylideny)}-5-[4- (trifluorometnyl)phenylaminosulfonyl]-2-indolinone
10732	E	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	Ε	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	E	10	3-(4-benzyloxy-5-t-butyl-3-chlorobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	É	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10732	F	2	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5- (morpholin-1-yl)sulfonyl-2-indolinone
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10732	F	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732 _	F	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	F	5	3-(3-t-butyl-4-methoxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10732	. F	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5-(morpholin- 1-yl)sulfonyl-2-indolinone
10732	F	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	F	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	F	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	F	10	3-(4-benzyloxy-5-t-butyl-3-chloro-benzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	F	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10732	G	-	3-[2-(thien-2-yl)-2-(trifluoromethyl)ethylidenyl]-5-(2- chloroethyl)-2-indolinone
10732	G	3	3-(3,5-diisopropyl-4-methoxybenzylidenyl]-5-(2- chloroethyl)-2-indolinone
10732	G	4	3-(3,5-diisopropyl-4-phenoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10732	G	5	3-(3-t-butyl-4-methoxybenzylidenyi)-5-(2- chloroethyl)-2-indolinone
. 10732	G	6	3-(4-benzyloxy-3-t-butylbenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10732	G	7	3-(3-bromo-5-t-butyl-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10732	G	8	3-(4-benzyloxy-3-bromo-5-t-butylbenzylidenyl)-5-(2 chloroethyl)-2-indolinone
	1	ı	

10732	G	9	3-(3-t-butyl-5-chloro-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10732 _	G	10	3-(4-benzyloxy-5-t-butyl-3-chlorobenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10732	G'	11	3-(3-t-butyl-5-iodo-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	А	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5,7- dibromo-2-indolinone
10733	Α	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5,7- dibromo-2-indolinone
10733	Α	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10733	A	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5,7- dibromo-2-indolinone
10733	А	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10733	Α	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5,7- dibromo-2-indolinone
10733	А	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5,7- dibromo-2-indolinone
10733	A	9	3-(5-bromo-2-hydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10733	A	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5,7-dibromo-2- indolinone
10733	A	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5,7- dibromo-2-indolinone
10733	В	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5-iodo- 2-indolinone
10733	В	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5-iodo- 2-indolinone
10733	В	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5-iodo-2- indolinone

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	10733	В	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5-iodo-2- indolinone
	10733 _	В	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5-iodo-2- indolinone
	10733	В	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5-iodo-2- indolinone
_	10733	В	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5- iodo-2-indolinone
	10733	В	9	3-(5-bromo-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
	10733	В	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5-iodo-2- indolinone
	10,733	В	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5- iodo-2-indolinone
	10733	С	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5- bromo-4-methyl-2-indolinone
-	10733	С	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5- bromo-4-methyl-2-indolinone
-	10733	C .	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
-	10733	С	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5-bromo- 4-methyl-2-indolinone
-	10733	С	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
r	10733	С	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5-bromo- 4-methyl-2-indolinone
	10733	C	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5- bromo-4-methyl-2-indolinone
-	10733	С	9	3-(5-bromo-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
Ì	10733	С	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5-bromo-4- methyl-2-indolinone

207 Table 13 (continued)

10733	C	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5-
10733			bromo-4-methyl-2-indolinone
10733 _	D	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	.7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	9	3-(5-bromo-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	. 10	· 3-(2-hydroxy-5-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	D	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10733	E	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	E	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	É	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	E	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonylj-2-indolinone
10733	E	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone

10733	E	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733 _	E	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	E	9	3-(5-bromo-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	E	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	Ε	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10733	F	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
· 10733	F	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	8	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	F	9	3-(5-bromo-2-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10733	F	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10733	F	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10733	G	2	3-(4-benzyloxy-3-t-butyl-5-iodobenzylidenyl)-5-(2- chloroethyl)-2-indolinone

10733	G .	3	3-(3-t-butyl-4-methoxy-5-nitrobenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733 _	G	4	3-(3,5-di-t-butyl-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	G	5	3-(4-benzyloxy-3,5-di-t-butylbenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	G	6	3-(3,5-dimethyl-4-methoxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	G	7	3-(4-benzyloxy-3,5-dimethylbenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	G	8 .	3-(5-bromo-2-hydroxy-3-methoxybenzylidenyl)-5- (2-chloroethyl)-2-indolinone
10733	G	9	3-(5-bromo-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10733	G	10	3-(2-hydroxy-5-nitrobenzylidenyl)-5-(2-chloroethyl)- 2-indolinone
10733	G	11	3-(4-hydroxy-3-methoxy-2-nitrobenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	A	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10734	A	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10734	A	4	3-(5-chloro-2-hydroxybenzylidenyl)-5,7-dibromo-2- indolinone
10734	A	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
. 10734	A	6	3-(4-nitrobenzylidenyl)-5,7-dibromo-2-indolinone
10734	A	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5,7- dibromo-2-indolinone
10734	A	8	3-(3-fluoro-2-hydroxybenzylideny!)-5,7-dibromo-2- indolinone

	10734	A	l	3-(3-bromo-4-hydroxybenzylidenyl)-5,7-dibromo-2- indolinone
	10734 _	A		3-(4-t-butylbenzylidenyl)-5,7-dibromo-2-indolinone
	10734	A	11	3-[(2-bromothien-5-yl)methylidenyl]-5,7-dibromo-2- indolinone
	10734	В	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
	10734	В	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5-lodo-2- indolinone
	10734	В	4	3-(5-chloro-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
	10734	В	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
	10734	В	6	3-(4-nitrobenzylidenyl)-5-iodo-2-indolinone
	10734	В	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
r	10734	В	, 8	3-(3-fiuoro-2-hydroxybenzylidenyl)-5-iodo-2- indolinone
r	10734	В	9	3-(3-bromo-4-hydroxybenzylidenyl)-5-iodo-2- indolinone
	10734	В	10	3-(4-t-butylbenzylidenyl)-5-iodo-2-indolinone
	10734	В	11	3-[(2-bromothien-5-y1)methylidenyl]-5-iodo-2- indolinone
	10734	С	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
	10734	С	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
	10734	С	4	3-{5-chloro-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone

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10734	С	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5-bromo- 4-methyl-2-indolinone
10734 _	С	6	3-(4-nitrobenzylidenyl)-5-bromo-4-methyl-2- indolinone
10734	С	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10734	С	8	3-(3-fluoro-2-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10734	С	9	3-(3-bromo-4-hydroxybenzylidenyl)-5-bromo-4- methyl-2-indolinone
10734	С	10	3-(4-t-butylbenzylidenyl)-5-bromo-4-methyl-2- indolinone
10734	С	11	3-{(2-bromothien-5-yl)methylidenyl]-5-bromo-4- methyl-2-indolinone
10734	D	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D .	4	3-(5-chloro-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	6	3-(4-nitrobenzylidenyl)-5-methylaminosulfonyl-2- indolinone
10734	D	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	8	3-(3-fluoro-2-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	9	3-(3-bromo-4-hydroxybenzylidenyl)-5- methylaminosulfonyl-2-indolinone
10734	D	10	3-(4-t-butylbenzylidenyl)-5-methylaminosulfonyl-2- indolinone

10734	D	11	3-[(2-bromothien-5-yl)methylidenyl]-5- methylaminosulfonyl-2-indolinone
10734 _	. E	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	4	3-(5-chloro-2-hydroxybenzylidenyl)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	5	3-(4-diethylamino-2-hydroxybenzylicenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	6	3-(4-nitrobenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	.7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	8	3-(3-fluoro-2-hydroxybenzylidenyi)-5-(4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	9	3-(3-bromo-4-hydroxybenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	10	3-(4-t-butylbenzylidenyl)-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	E	11	3-[(2-bromothien-5-yl)methylidenyl]-5-[4- (trifluoromethyl)phenylaminosulfonyl]-2-indolinone
10734	F	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10734	F	3	3-(3,5-dichloro-2-hydroxybenzylicanyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10734	F	4	3-(5-chloro-2-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10734	F	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10734	F	6	3-(4-nitrobenzylidenyl)-5-(morpholin-1-yl)sulfonyl-2- indolinone

10734	F	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5- (morpholin-1-yl)sulfonyl-2-indolinone
10734 _	F	8	3-(3-fluoro-2-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10734	F	9	3-(3-bromo-4-hydroxybenzylidenyl)-5-(morpholin-1- yl)sulfonyl-2-indolinone
10734	F	10	3-(4-t-butylbenzylidenyl)-5-(morpholin-1-yl)sulfonyl- 2-indolinone
10734	F	11	
10734	G	2	3-(3-ethoxy-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	3	3-(3,5-dichloro-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	4	3-(5-chloro-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	5	3-(4-diethylamino-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	6	3-(4-nitrobenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10734	G	7	3-(3,5-dibromo-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	8	3-(3-fluoro-2-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	9	3-(3-bromo-4-hydroxybenzylidenyl)-5-(2- chloroethyl)-2-indolinone
10734	G	10	3-(4-t-butylbenzylidenyl)-5-(2-chloroethyl)-2- indolinone
10734	. G	11	3-[(2-bromothien-5-yl)methylidenyl]-5-(2- chloroethyl)-2-indolinone

Table 14

Barcode/	Flk Kinase	Biochem EGFR	PDGF	Met Kinase
Plate Row-		}	Kinase	1
Plate Column				
	%Inhibition	%Inhibition	%Inhibition	% Inhibition
10717/A02	0.1	24.3		46.1
10717/A03	2.9	1.0		54.6
10717/A04	-4.5	29.0		37.4
10717/A05	-2.6	16.6		35.6
10717/A06	-10.8	-7.8		31.7
10717/A07 ·	-6.4	20.2		29.2
10717/A08	-5.2	39.1		21.7
10717/A09	-3.9	37.7		9.4
10717/A10	-3.3	8.1		71.6
10717/A11	-5.8	59.9		64.8
10717/B02	5.0	31.7		87.5
10717/B03	-8.8	7.3		90.5
10717/B04	-18.3	10.3		70.0
10717/B05	1.0	31.7		87.4
10717/B06	5.4	-30.8		89.5 .
10717/B07	-18.3	58.3		90.0
10717/B08	-0.9	60.5		88.8
10717/B09	-40.7	78.3		88.8
10717/B10	-2.3	16.1		56.1
10717/B11	11.4	82.7		91.0
10717/C02	4.1	-0.4	1	29.7
10717/C03	-7.7	18.0	1 .	25.3
10717/C04	-0.8	14.4	· ·	25.0
10717/C05	-2.3	13.1		44.6
10717/C06	7.6	-49.7		44.1
10717/C07	1.6	28.7		16.5
10717/C08	7.0	24.3	1	27.3
10717/C09	. 77.1	8.1	<b></b>	47.7
10717/C10	-8.0	17.5		22.8
10717/C11	4.6	67.3		71.8
10717/D02	5.1	10,1	<b> </b>	28.6
10717/D02	1.1	-1.4	<del>                                     </del>	11.1
10717/D03	-2.1	4.9		21.0
10717/D04	-3.8	-2.8		23.8
10717/D05	1.0	-23.4	-	33.8
10717/D07	-8.4	-4.5	-	16.8
10717/D07	6.8	-7.8	<del></del>	16.0
10717/D09	-55.0	6.8		29.1
10717/D09	-6.0	3.5	<del> </del>	15.6
10717/D10	11.6	59.1	<del></del>	55.3
	17.9	17.2		24.0
10717/E02	17.9	11.7	+	52.2
10717/E03		-28.3	<del></del>	29.4
10717/E04	6.1	22.4		39.1
10717/E05	13.2	-26.1		24.8
10717/E06	7.5	-7.8		41.0
10717/E07	15.3			51.7
10717/E08	13.2	28.2		19.2
10717/E09	-1.1	-5.8	+	35.9
10717/E10	4.7	-6.1		75.1
10717/E11	8.9	44.9		1 70.1

215 Table 14 (continued)

		6.2	30.4
10717/F02	2.2	-4.7	42.8
10717/F03	0.5	-15.7	11.4
10717/F04	-0.1	-15.7	21.5
10717/F05	3.2		49.0
10717/F06	8.9	-22.8	37.6
10717/F07	2.0	-14.3	64.0
10717/F08	-0.7	-23.4	41.4
10717/F09	-13.3	1.8	54.6
10717/F10	-4.4	-26.4	81.5
10717/F11 '	1.4	91.2	30.7
10717/G02	14.9	32.3	
10717/G03	1.8	18.8	4.5
10717/G04	8.0	6.0	
10717/G05	5.3	-0.1	4.7
10717/G06	4.3	-3.4	34.0
10717/G07	-17.0	13.1	7.5
10717/G08	1.9	36.4	10.9
10717/G09	-29.7	24.9	19.1
10717/G10	4.8	2.4	30.9
10717/G11	16.4	71.7	73.8
10718/A02	3.0	11.3	54.6
10718/A03	7.6	-6.1	92.7
10718/A04	6.9	27.3	81.7
10718/A05	3.2	-6.9	36.1
10718/A06	7.8	19.4	61.3
10718/A07	16.2	-10.6	. 58.6
10718/A08	3.2	5.8	. 36.8
10718/A09	-18.4	-4.1	67.7
10718/A10	23.4	41.5	77.9
10718/A11	2.7	21.2 .	58.9
10718/802	7.0	24.9	52.9
10718/B03	1.7	-0.2	77.9
10718/B04	11.8	8.5	63.9
10718/B05	11.5	56.3	76.0
10718/B06	16.5	28.5	78.4
10718/B07	17.7	9.9	53.7
10718/B08	5.4	28.9	63.4
	-14.7	-0.8	52.9
10718/B09 10718/B10	20.1	13.7	83.6
10718/B10	4.5	30.3	69.6
	26.2	-21.9	29.6
10718/C02	-13.9	41.3	95.7
10718/C03	15.3	14.8	93.1
10718/C04	20.5	10.9	8.7
10718/C05		5.6	3.9
10718/C06	16.8	-4.9	29.6
10718/C07		13.1	22.7
10718/C08	19.6	26.5	38.2
10718/C09	5.3	-18.7	4.4
10718/C10	-11.9	-18.7	10.1
10718/C11	11.4		32.0
10718/D02	13.3	14.4	92.9
10718/D03	1.1	61.9	92.9
10718/D04	6.4	52.0 2.8	10.6
10718/D05			

216 Table 14 (continued)

	15.8	20.0	11.1
10718/D06	7.8	5.6	26.1
10718/D07	3.9	3.0	2.3
10718/D08	-9.1	6.0	9.9
10718/D09	15.0	12.3	55.3
10718/D10	13.3	5.4	11.3
10718/D11	19.7	1.0	46.3
10718/E02	10.0	50.4	95.3
10718/E03	15.1	16.4	87.7
10718/E04	16.1	-3.1	32.2
10718/E05 ·	15.4	2.0	33.4
10718/E06	15.6	13.9	80.5
10718/E07	9.2	9.3	69.6
10718/E08	0.9	17.0	80.8
10718/E09	15.2	-7.5	60.8
10718/E10	12.1	-15.2	37.5
10718/E11	20.1	17.8	66.7
10718/F02	-0.2	22.5	87.9
10718/F03	9.4	1.2	78.1
10718/F04	19.5	-4.9	53.7
10718/F05	19.5	-9.1	42.5
10718/F06		-6.3	67.9
10718/F07	16.5 15.3	-8.7	28.4
10718/F08	-3.0	-9.5	52.7
10718/F09		-12.0	23.7
10718/F10	17.9	-3.9	31.3
10718/F11	-2.5	49.2	67.7
10718/G02	-2.5	57.3	77.9
10718/G03	1.8	15.8	78.1
10718/G04	3.7	2.8	60.3
10718/G05	9.8	-18.7	61.0
10718/G06	11.4	-21.3	52.0
10718/G07	6.1	-8.3	17.5
10718/G08	-12.8	-15.4	27.0
10718/G09		-7.5	10.8
10718/G10	7.1	-4.9	3.0
10718/G11	21.4	43.0	40.9
10719/A02	3.9	67.7	84.1
10719/A03	19.2	43.7	22.9
10719/A04	10.0	23.1	39.6
10719/A05	14.0	18.2	-7.0
10719/A06	21.3	15.5	68.1
10719/A07	11.9	47.3	75.5
10719/A08	12.3	2.2	47.0
10719/A09	10.9	8.2	13.4
10719/A10		10.5	34.9
10719/A11	7.4	29.0	47.0
10719/B02	11.5	59.5	85.8
10719/B03	14.2	29.9	38.4
10719/B04		35.9	33.6
10719/B05	17.7	-0.5	22.5
10719/B06	12.5	23.7	52.2
10719/B07	4.0	42.3	33.2
10719/B08	11.3	-17.7	23.5
10719/B09	11.3		

217 Table 14 (continued)

10719/B10	1.1	-1.2		53.4
10719/B10	11.2	-23.9		36.5
10719/C02	4.1	10.2		41.3
	15.3	60.6		69.1
10719/C03	59.9	14.4		14.7
10719/C04	25.6	27.4		35.5
10719/C05	47.7	-14.3		18.4
10719/C06	31.2	14.4		7.7
10719/C07	15.0	-10.2		57.5
10719/C08	23.5	-0.1		8.9
10719/C09		10.7		7.9
10719/C10	11.8	-25.7		-5.1
10719/C11	9.9	9.8		27.5
10719/D02	9.7	95.7		93.2
10719/D03	4.8	15.3		28.9
10719/D04	27.8	18.5		71.8
10719/D05	16.3		ļ	11.2
10719/D06	25.8	-12.2		41.5
10719/D07	-123.5	13.7		45.2
10719/D08	8.2	-12.2		13.0
10719/D09	7.8	-3.1		
10719/D10	8.3	-11.8		22.3 12.8
10719/D11	-8.7	-11.1		
10719/E02	26.1	40.0		35.7
10719/E03	17.1	73.0		87.2
10719/E04	31.2	-7.4		3.1
10719/E05	21.5	21.2		39.0
10719/E06	17.1	-42.0		-4.5
10719/E07	26.7	-18.4		55.5
10719/E08	21.8	36.8		80.0
10719/E09	13.5	-33.1		36.1
10719/E10	17.6	-32.4		40.2
10719/E11	26.3	-51.8		28.5
10719/F02	28.6	14.8		28.1
10719/F03	11.2	-30.8		89.5
10719/F04	26.6	-6.0		3.3
10719/F05	20.7	35.0		63.1
10719/F06	13.5	-26.0		-22.0
10719/F07	18.7	20.1		36.7
10719/F08	15.1	90.9		75.7
10719/F09	-6.5	-17.7		19.2
10719/F10	10.4	-17.7		30.8
10719/F10	11.6	-66.3		8.7
10719/G02	27.3	-12.2		-2.4
10719/G02 10719/G03	-25.8	89.5		87.6
	11.5	-4.7		-8.2
10719/G04	18.0	4.0		15.9
10719/G05	23.2	-45.7		-18.1
10719/G06	20.1	-8.1		24.0
10719/G07	3.2	65.4		39.4
10719/G08		-32.8		1.3
10719/G09	18.1	-32.6		35.5
10719/G10	9.7	-44.1		24.0
10719/G11	6.9	11.3		45.2
10720/A02	4.7	-5.3		58.2
10720/A03	17.7	-0.3		

218 Table 14 (continued)

10720/A04 12.3 -1.8 52.3 10720/A04 12.3 -1.8 52.3 10720/A05 8.0 -4.4 43.4 43.4 43.4 10720/A06 5.6 44.7 63.6 10720/A07 6.6 42.5 57.2 10720/A07 6.6 42.5 77.9 10720/A09 8.1 8.6 75.4 10720/A09 8.1 8.6 75.4 10720/A10 -5.2 -2.7 68.4 10720/A11 -0.6 -23.2 58.7 10720/B02 6.5 18.4 38.8 10720/B02 6.5 18.4 32.3 53.3 10720/B03 9.8 50.5 61.8 10720/B04 9.8 50.5 51.8	
10720/A05         5.5         44.7         63.6           10720/A06         5.6         42.5         57.2           10720/A07         6.6         42.5         77.9           10720/A08         -2.2         -23.2         77.9           10720/A09         8.1         8.6         75.4           10720/A10         -5.2         -2.7         68.4           10720/A11         -0.6         -23.2         58.7           10720/B02         6.5         18.4         38.8           10720/B03         6.4         32.3         53.3           10720/B03         9.8         50.5         61.8	
10720/A09	
10720/A07         6.6         42.5         77.9           10720/A08         -2.2         -23.2         77.9           10720/A09         8.1         8.6         75.4           10720/A10         -5.2         -2.7         68.4           10720/A11         -0.6         -23.2         58.7           10720/A11         -0.6         -33.2         38.8           10720/B03         6.5         18.4         38.8           10720/B03         6.4         32.3         53.3           10720/B03         9.8         50.5         61.8	
10720/A09 8.1 8.6 75.4 10720/A09 8.1 8.6 68.4 10720/A10 -5.2 -2.7 58.7 10720/A11 -0.6 -23.2 58.7 10720/B02 6.5 18.4 38.8 10720/B03 6.4 32.3 53.3	
10720/A09     8.1     -5.2     -5.7     68.4       10720/A10     -5.2     -2.7     58.7       10720/A11     -0.6     -23.2     58.7       10720/B02     6.5     18.4     38.8       10720/B03     6.4     32.3     53.3       10720/B03     9.8     50.5     61.8	
10/20/A10     -0.6     -23.2     58.7       10720/B02     6.5     18.4     38.8       10720/B03     6.4     32.3     53.3       10720/B03     9.8     50.5     61.8	
10720/A11         -0.6         -2.5/2         38.8           10720/B02         6.5         18.4         38.8           10720/B03         6.4         32.3         53.3           10720/B03         9.8         50.5         61.8	
10720/802	
10720/803 , 6.4 32.3 61.8	
10720/805 11.6 36.4 55.1	
10720/806 7.3 21.2 61.5	
10720/B07 12.0 52.0 27.7	
10720/B08 3.6 -12.0 57.4	
10720/809 10.1 37.6	
10720/B10 -5.5 50.2	
10720/B11 -20.3 22.4 72.1	i
10720/C02 18.0 23.5 50.3	
10720/C03 15.1 0.9 29.0	1
10730/C04 15.3 -13.1	1
10730/005 -36.1 -15.3	i
10730/C06 12.2 -9.7	1
10720/C07 20.7 -25.4	┨
10.720/C08	1
10730/C09 12.1 44.7	1
-21.1 2.0	4
10730/C11 52.5 -21.9	┨
10720/D02 12.1 11.1	4
17.0 0.9	4
10730/004 15.6 -7.7	-
10730/D05 4.8 -24.1	4
10730/006 10.1 -35.0	-
10720/D07 11.8 14.8 30.2	4
	-
10720/D00 5.8 2.4 62.0	-
40730/D10 -6.6 -10.2	$\dashv$
10720/2010	-
10720/503 5.7 25.2 18.0	$\dashv$
107207202 54.9	-
10/20/200	-
10720/204	_
107207203 35.5 30.1 33.1	-
107207200	-
37.4	-
107207200 43.4	
10/20/203	-
10720/210	_
10/20/211	
10/20/F02	
10/20/F03 10.5 -11.7 43.1	
10/20/F04 33.8	
10720/F05 -3.0 21.9	
10720/F06 11.3 35.2 64.6	
10720/F07 4.6 33.2	



	-4.1	-39.6		36.2
10720/F08	5.9	6.4		49.2
10720/F09	-2.6	6.0		42.8
10720/F10	5.0	-61.1		1.6
10720/F11	5.0	-13.1		20.1
10720/G02	2.6	10.0		42.1
10720/G03		-34.1		5.0
10720/G04	2.4	27.0		37.0
10720/G05	-2.9	-10.4		21.6
10720/G06	-3.4	-8.0		12.9
10720/G07 '	5.1	-9.5		26.7
10720/G08	-17.9	-19.7		49.5
10720/G09	2.1	20.4		55.9
10720/G10	-36.6	-56.7		36.2
10720/G11	-18.0	17.8		41.1
10721/A02	10.6	25.5		56.2
10721/A03	11.4	59.0		85.0
10721/A04	6.5	41.4		52.9
10721/A05	12.5	32.7		81.3 .
10721/A06	6.4	35.2	-	29.7
10721/A07	-4.7			29.9
10721/A08	4.8	24.0		23.0
10721/A09	10.9			68.9
10721/A10	5.2	31.1		23.9
10721/A11	4.8	24.6		82.6
10721/B02	19.5	58.6	+	70.8
10721/B03	19.9	38.9	<del> </del>	93.1
10721/B04	13.8	79.3		70.8
10721/B05	45.9	76.8		92.4
10721/B06	3.4	71.5		47.1
10721/B07	11.2	47.6		64.5
10721/B08	18.5	64.0		28.3
10721/B09	· 9.0	38.9		30.4
10721/B10	20.9	42.9		6.7
10721/B11	-2.1	34.6		59.2
10721/C02	9.7	68.3		6.2
10721/C03	16.5	64.6		88.7
10721/C04	21.8	77,7		48.7
10721/C05	56.4	68.1		56.4
10721/C06	14.4	80.2		25.7
10721/C07	10.9	24.6		24.8
10721/C08	55.8	38.3		-4.7
10721/C09	17.5	39.8		44.6
10721/C10	21.1	17.4		3.7
10721/C11	13.9	14.1		22.5
10721/D02	15.1	21.5		19.5
10721/D03	17.8	11.6		35.3
10721/D04	15.2	5.0		91.9
10721/D05	-25.1	47.0		9.0
10721/D06	1.6	44.5		-6.8
10721/D07	6.4	23.0	*	45.3
10721/D08	3.9	31.7		-4.9
10721/D09	17.6	15.3		13.4
10721/D10	23.7	3.3		23.2
10721/D10	20.6	22.2		23.2
10/21/011				



10721/E02 17.2 -9.5 38.6 10.0 25.1 12.3	
10/21/200	
10/21/204	
10/21/203	
10/21/200 13.6	
10721/E07 13.0 30.0	
10721/E08 13.7 40.5	
10721/E09 36.9 42.0 55.1	
10721/E10 9.3 31.5	
10721/E11	
10721/F02 17.0 17.0 40.6	
10721/F03 9.1 7.0	
10721/F04 7.4 00.5	
10721/F05 8.1 201.7 80	
10721/F06 2.2 2.5	
10721/F07 4.0 27.0 76	
10721/F08 -8.4 57.0	
10721/F09 65.2 79	
10721/F10 49.6 78	
10721/F11 29.7 33.5	
10721/G02 16.4 25.4 25.4	
110721/G03 1 12.1 25.4	
10721/G04 3.2 04.0	
10721/G05 -15.1 30	
10721/G06 18.9 23.2	
10721/G07 3.3 14.1	
10721/G08 5.4 12.5	
10721/G09 20.4 14.5	2.0
10721/G10   24.4   2.1	.0
10721/G11 -/.1 0.4 ·	1.9
10722/A02 U.8 23.7 25.6	0.3
10722/A03 6.7 0.0 25.5	
10722/A04 13.4 21.0 -0.9 5	1.4
10722/A05 10.5 22.4 33.5 90	0.5
10722/A06 9.6 28.4 19.8 7	1.6
10722/A07 9.4 29.9 23.8 6	4.1
10722/A08 13.7 23.9 15.2 /	0.5
10722/A09 7.3 16.8 21.5 8	6.5
10722/A10 6.6 -4.2 15.2 /	9.0
10722/411 6.7 -0.1 21.5	8.6
10722/802 10.1 16.3 28.9 4	4.3
10722/803 13.6 19.6 3.7 4	0.1
14.7 10.6 3.1	3.4
18.5 9.3 21.5	7.2
13.9 -4.9 21.5	72.6
66 6.2 20.9	18.2
10722/807 0.5 27.8	72.0
10722/500	59.7
10722/809 8.7 14.0 30.3	56.4
10/22/810 -0.9 45.5 35.5	83.0
10722/B11 5.2 30.6	34.5
10/22/C02 29.1 32.6	73.6
10722/C03 16.7 72.3	70.7
10722/C04 10.7 26.6	44.9
10722/C05 23.5 19.1 26.6	

221 Table 14 (continued)

10722/C06	24.5	-11.0	24.9	45.1
10722/C06	15.8	-15.5	31.2	61.2
10722/C08	17.8	14.8	31.2	80.1
10722/C08	25.9	-3.1	32.4	45.1
10722/C10	2.3	22.8	18.0	33.9
10722/C11	13.8	-14.2	36.4	52.6
10722/D02	30.7	26.1	31.8	26.4
10722/D02	15.0	31.0	-9.4	52.8
10722/D03	23.5	20.3	15.7	63.4
10722/D04	21.4	-3.8	22.0	35.8
10722/D05 ·	21.9	-2.5	8.9	32.4
10722/D08	14.1	-2.8	25.5	42.6
10722/D07	29.1	-2.6	41.5	60.5
10722/D08	14.7	-17.2	30.6	52.2
	8.2	-0.6	41.5	40.5
10722/D10	9.6	-10.1	15.2	41.0
10722/D11 10722/E02	17.0	22.2	23.2	71.1
	10.7	33.0	-7.2	88.4
10722/E03	38.6	1.4	30.6	52.6
10722/E04	19.2	-7.0	19.2	73.0
10722/E05	21.4	7.6	32.9	71.6
10722/E06	24.3	28.7	40.9	71.6
10722/E07		10.4	38.7	82.8
10722/E08	18.6	4.1	26.6	55.1
10722/E09	16.2	-13.3	31.8	86.6
10722/E10	3.1	4.2	28.3	84.0
10722/E11	15.3	9.2	12.9	33.9
10722/F02	5.3 12.0	13.7	-14.0	59.7
10722/F03	27.5	16.8	-2.0	58.9
10722/F04	15.0	-2.8	6.0	6.4
10722/F05	11.0	6.5	2.6	6.0
10722/F06	15.5	-3.7	-6.6	63.0
10722/F07	66.3	-5.4	25.5	89.3
10722/F08	15.3	-35.8	26.6	65.7
10722/F09	3.3	10.7	24.9	67.8
10722/F10	4.5	-6.5	15.7	73.2
10722/F11		27.3	14.6	43.0
10722/G02	15.1	4.1	-3.7	52.2
10722/G03	5.3	-13.3	11.7	63.2
10722/G04	7.2	-9.0	-6.0	9.7
10722/G05		-5.2	-6.0	12.2
10722/G06	7.4	-32.5	-3.7	41.2
10722/G07	8.0	-8.5	12.9	66.1
10722/G08	8.2	-8.5	0.9	51.0
10722/G09	6.1	3.3	16.9	27.0
10722/G10	-1.7	-39.4	0.3	35.3
10722/G11	0.6		64.4	100.8
10723/A02	-5.5	97.8	11.7	76.5
10723/A03	1.2	38.5	13.1	97.9
10723/A04	27.2	30.8		75.7
10723/A05	-17.8	26.4	17.9	79.1
10723/A06	8.6	20.1	43.6	63.2
10723/A07	-6.1	3.9	22.1	77.3
10723/A08	-12.9	-2.1	29.7	85.9
10723/A09	-1.0	-4.5	42.9	05.9

222 Table 14 (continued)

[40700/A40	-3.1	-24.8	34.6	62.1
10723/A10	42.9	-4.0	41.5	60.0
10723/A11	-0.3	91.0	29.0	100.3
10723/B02	7.1	-5.0	14.5	82.5
10723/B03	18.7	5.1	40.1	90.6
10723/B04	-15.4	36.4	15.2	85.1
10723/B05	31.8	11.9	58.8	90.6
10723/B06	6.5	28.8	24.9	86.7
10723/B07	1.0	-0.4	56.1	82.8
10723/B08	2.7	-12.0	27.6	57.7
10723/B09 '	5.8	1.8	17.2	88.5
10723/B10	6.3	-26.0	22.8	62.6
10723/B11	9.6	73.6	39.4	100.6
10723/C02	-3.1	5.9	42.9	88.8
10723/C03	8.8	23.5	36.7	91.9
10723/C04		35.2	22.8	73.1
10723/C05	5.6	-4.5	26.3	63.4
10723/C06	17.8	-4.0	27.6	44.3
10723/C07	20.9	45.0	29.0	83.0
10723/C08	-35.5	62.7	62.3	84.6
10723/C09	-22.3		25.6	43.8
10723/C10	9.5	-7.2	8.9	47.0
10723/C11	9.5	-1.1	22.1	93.0
10723/D02	2.0	63.2	8.2	69.4
10723/D03	-14.7	33.5	31.8	97.7
10723/D04	15.2	45.1		54.5
10723/D05	-6.1	3.7	8:2	60.0
10723/D06	17.6	-7.4	· 6.2	21.9
10723/D07	15.8	13.4	16.6	53.5
10723/D08	-4.5	4.9	31.1	
10723/D09	50.4	-3.8	21.4	62.6
10723/D10	6.5	-9.3	21.4	38.1 42.0
10723/D11	14.8	-6.2	24.9	
10723/E02	8.1	91.0	46.4	97.9
10723/E03	8.7	8.3	47.1	76.8
10723/E04	30.7	59.8	36.0	94.5
10723/E05	8.9	-15.6	-4.9	63.7
10723/E06	19.3	11.5	18.6	74.4
10723/E07	17.4	38.1	14.5	47.7
10723/E08	-0.4	52.6	26.3	89.3
10723/E09	7.9	29.1	22.1	91.7
10723/E03	5.2	-7.9	44.3	59.5
10723/E11	8.9	-44.6	32.5	50.1
10723/F02	10.3	70.4	1.3	99.0
10723/F03	4.4	9.3	1.3	78.3
10723/F04	12.3	17.5	21.4	94.0
10723/F05	-6.4	-3.8	-7.7	45.6
10723/F05	20.4	5.4	-30.6	84.1
	20.7	-4.1	6.8	26.6
10723/F07	-0.5	5.7	20.7	75.5
10723/F08	1.2	14.1	3.4	78.6
10723/F09	9.1	4.2	-2.2	74.1
10723/F10	-1.2	-41.3	36.7	72.3
10723/F11	-1.2	90.8	13.8	99.2
10723/G02	4.3	18.5	6.2	74.7
10723/G03	4.3			

223 Table 14 (continued)

	8.7	16.7	21.4	85.9
10723/G04	-9.4	1.3	2.0	79.9 ·
10723/G05	14.1	-26.7	-0.8	64.5
10723/G06	14.1	15.5	-5.6	43.0
10723/G07	-22.9	0.1	7.5	79.9
10723/G08	-1.8	-32.6	-2.9	80.7
10723/G09		-4.1	-27.8	40.7
10723/G10	. 3.5	-35.0	-7.7	39.4
10723/G11	1.8	36.7	6.3	61.7
10724/A02	-7.8	17.2	0.1	30.7
10724/A03 '		15.4	5.0	62.6
10724/A04	-15.9 -15.2	20.3	5.0	68.4
10724/A05	-3.7	1.4	30.7	46.8
10724/A06	3.7	18.3	16.1	58.7
10724/A07	-5.2	1.6	19.6	37.5
10724/A09	1.6	40.0	28.6	83.8
10724/A10		-16.6	29.3	27.2
10724/A11	12.8 -6.2	34.9	-21.5	48.8
10724/B02	-6.2 -48.9	14.9	14.7	51.0
10724/B03	-48.9	50.2	42.5	81.2
10724/B04		21.2	12.6	45.6
10724/B05	-2.2	30.9	43.2	52.1
10724/B06	13.4	44.0	27.2	57.9
10724/B07	-1.8	8.7	25.8	43.8
10724/B09	3.5	76.2	9.8	95.0
10724/B10	8.5	-23.2	23.0	43.0
10724/B11	9.0	53.6	-9.0	40.7
10724/C02	-0.3	16.5	4.3	68.7
10724/C03	-20.3	13.2	24.4	84.3
10724/C04	-18.6	-0.8	20.3	67.7
10724/C05	-18.6	-2.4	34.9	15.4
10724/C06	-1.5	9.4	22.3	14.2
10724/C07	-1.2	1.0	20.3	5.3
10724/C09	9.3	13.8	27.2	91.2
10724/C10	-2.3	0.7	23.0	4.9
10724/C11	10.3	40.5	-9.6	37.5
10724/D02	12.4	2.5	-15.2	18.2
10724/D03	0.1	5.4	-1.3	70.5
10724/D04	0.5	-8.4	35.6	36.1
10724/D05	-1.6	-12.4	40.4	23.0
10724/D06	12.4	25.6	7.0	38.1
10724/D07	-2.6	-15.3	18.9	16.1
10724/D09	0.9	12.7	38.3	59.6
10724/D10	3.7	12.7	29.3	20.3
10724/D11	14.9	39.8	-54.2	55.4
10724/E02	17.7		14.7	85.8
10724/E03	10.6	33.1	-32.6	93.3
10724/E04	55.2	8.9	-7.6	70.3
10724/E05	13.8	0.5	6.3	25.8
10724/E06	8.3	1.6	0.1	46.8
10724/E07	-3.6	9.4	21.0	27.0
10724/E09	14.3		34.9	84.0
10724/E10	7.3	41.4	5.0	39.3
10724/E11	5.1	-26.8	0.8	73.0
10724/F02	9.7	27.4	1 0.8	

224 Table 14 (continued)

10724/F03	-12.5	9.8	-45.8	44.2
10724/F04	10.2	2.9	-52.1	81.9
10724/F05	-7.2	-16.4	-0.6	67.0
10724/F06	13.8	-3.5	-5.5	51.2
10724/F07	-6.0	8.9	-6.2	47.3
10724/F09	17.1	-14.6	-17.3	20.5
10724/F10	2.7	-10.4	1.5	55.6
10724/F11	4.5	3.8	-6.9	49.3
10724/G02	15.1	42.5	-7.6	44.9
10724/G03	-8.4	7.8	-2.7	36.7
10724/G04	-7.9	12.9	-12.4	71.0
10724/G05	-0.1	-20.8	-10.3	61.0
10724/G06	0.1	3.2	-6.9	20.3
10724/G07	-1.9	-11.7	-41.6	2.3
10724/G09	9.1	-21.7	-18.0	-2.8
10724/G10	7.0	-10.6	-15.9	62.8
10724/G11	6.8	-29.5	-29.1	11.2
10725/A02	-2.0	3.9	-14.2	46.6
10725/A02	3.6	-38.2	5.9	68.0 .
10725/A04	-8.6	26.2	-3.2	55.3
10725/A05	-13.9	7.9	13.1	47.5
10725/A06	-7.3	-9.5	40.9	71.7
10725/A07	-12.3	18.2	17.9	59.3
10725/A08	-2.9	10.9	14.1	45.3
10725/A08	-13.9	4.9	29.4	44.3
10725/A09	-3.2	14.0	33.7	43.2
10725/A10	-21.9	14.6	18.9	49.1
10725/B02	-2.8	2.5	-7.5	66.9
10725/B02	4.9	-15.3	7.8	70.8
10725/B03	1.1	76.9	9.3	90.4
10725/B05	-61.0	20.4	44.7	68.3
10725/B05	-0.5	-13.7	31.3	53.3
10725/B07	24.6	45.8	100.8	74.0
10725/B07	-24.1	41.8	29.4	66.7
	0.4	72.3	43.8	65.7
10725/B09	5.1	53.3	26.0	69.9
10725/B10	-42.3	43.0	66.3	76.3
10725/B11	7.0	-43.4	-5.1	6.3
10725/C02	2.0	-12.7	19.3	72.9
10725/C03	-27.3	31.8	25.1	75.9
10725/C04	-37.0	-21.9	28.9	31.7
10725/C05	-9.3	-11.5	46.6	54.7
10725/C06	65.0	-16.5	107.0	38.8
10725/C07	-8.7	-11.9	101.7	28.0
10725/C08	11.2	23.6	34.7	24.1
10725/C09		5.3	38.5	-0.6
10725/C10	8.7	-22.1	80.7	48.4
10725/C11	104.5	-22.1	-8.4	14.0
10725/D02	-3.6	-23.9	5.4	72.9
10725/D03	-11.3		12.2	55.1
10725/D04	3.6	4.3	10.7	24.5
10725/D05	2.3	-19.7	21.7	24.7
10725/D06	-0.5	-26.4		37.0
10725/D07	2.6	-25.8	18.4	39.2
10725/D08	1.8	20.0	38.5	39.2

225 Table 14 (continued)

			35.6	28.0
10725/D09	-0.9	4.3	43.8	27.8
10725/D10	9.0	11.7	23.2	100.5
10725/D11	13.6	-12.5	-8.9	40.2
10725/E02	-5.6	4.3		60.9
10725/E03	-0.8	-10.3	10.7	59.0
10725/E04	-38.8	31.2	3.1	28.2
10725/E05	-0.2	-5.5	27.5	36.7
10725/E06	-1.8	-17.7	39.0	45.3
10725/E07	9.7	12.5	28.9	39.7
10725/E08 '	12.1	14.2	48.6	22.4
10725/E09	7.0	31.4	37.5	-4.7
10725/E10	9.3	6.1	28.4	9.6
10725/E11	18.9	-36.0	20.8	
10725/F02	5.8	-3.7	-15.1	27.8
10725/F03	4.3	-36.2	-27.1	63.2
10725/F04	-6.9	-49.6	-4.6	38.1
10725/F05	-0.8	-18.9	-5.6	15.5
10725/F06	-1.0	-37.8	14.1	41.8
10725/F07	6.9	16.4	15.0	67.8
10725/F08	8.9	15.4	28.9	72.2
10725/F09	6.8	32.2	28.4	48.5
10725/F10	4.8	3.7	17.9	14.2
10725/F11	9,9	20.8	20.3	25.7
10725/G02	-3.7	-20.5	-11.8	30.8
10725/G02	-6.9	-2.5	-6.5	58.6
10725/G04	6.1	-12.3	-8.9	47.1
10725/G05	-18.3	68.7	7.4	15.6
10725/G05	21.7	-19.9	27.5	35.8
10725/G07	4.8	-25.8	23.7	39.7
10725/G08	-14.8	-13.7	8.3	47.3
10725/G09	15.2	6.5	43.8	4.7
10725/G10	11.1	17.8	44.7	27.7
10725/G10	-28.0	-32.4	22.2	25.7
10726/A03	-2.6	-12.5	4.3	70.1
10726/A03	7.6	40.8	44.2	85.7
10726/A04	-7.1	-28.4	22.1	75.2
10726/A05	-4.6	0.2	22.1	54.7
10726/A07	-72.3	88.7	-36.8	101.4
10726/A08	-4.0	-28.4	10.7	63.1
10726/A08	-4.5	-6.3	16.4	70.8
	3.7	26.5	8.1	58.9
10726/A10	0.5	6.2	23.3	70.8
10726/A11	11.1	3.5	16.4	81.1
10725/B03	16.8	71.1	39.1	78.9
10726/B04	13.2	49.0	27.1	96.8
10726/B05	11.3	6.6	34.1	76.1
10726/B06		72.4	-59.5	98.5
10726/B07	-36.5 12.2	23.6	24.6	60.2
10726/B08		28.9	22.7	72.3
10726/B09	7.5	40.8	6.2	58.5
10726/B10		39.4	23.3	64.4
10726/B11	7.4	29.8	28.4	38.9
10726/C03	24.9	58.4	36.6	91.7
10726/C04	12.3	16.7	25.2	58.0
10726/C05	4.0	10.7		



	23.8	-0.9	36.0	42.6
10726/C06	-17.0	40.8	-67.7	84.9
10726/C07	3.4	7.5	21.4	46.8
10726/C08	12.9	-14.3	26.5	48.5
10726/C09	5.5	2.8	16.4	36.7
10726/C10	-32.2	4.8	51.1	34.7
10726/C11	21.6	-5.4	21.4	52.1
10726/D03	7.8	-20.1	34.1	62.9
10726/D04	8.2	-8.1	39.1	51.2
10726/D05	16.3	-24.4	28.4	42.8
10726/D06 '	-26.9	18.5	-81.0	84.6
10726/D07	12.1	-11.4	22.1	39.5
10726/D08	14.4	-6.5	22.1	45.7
10726/D09	14.7	-6.5	32.2	35.3.
10726/D10		-6.3	30.9	9.6
10726/D11	10.5	-15.9	20.2	62.4
10726/E03	-5.5	53.0	12.6	85.5
10726/E04	8.1	5.5	4.3	71.0
10726/E05	8.1	-20.6	41.7	-7.4
10726/E06	6.2	20.5	-12.1	84.0
10726/E07	-40.0	-8.5	34.1	58.9
10726/E08	4.1	10.0	34.7	50.3
10726/E09	9.9	-9.0	37.9	41.5
10726/E10	16.5	-14.1	30.3	34.5
10726/E11	16.2	-17.4	5.6	54.1
10726/F03	8.3		18.3	93.5
10726/F04	31.5	-26.8	-17.8	51.2
10726/F05	8.9		17.0	16.2
10726/F06	17.7	-24.1	-99.4	96.1
10726/F07	9.6	76.2	28.4	67.3
10726/F08	15.3	-21.5	-2.6	66.8
10726/F09	9.6	-22.8	9.4	51.4
10726/F10	7.0	-17.4	25.2	57.6
10726/F11	13.6	-16.8	4.3	26.8
10726/G03	11.3	-17.2	14.5	72.8
10726/G04	9.7	60.6	6.2	81.1
10726/G05	14.9	5.1	-26.6	19.9
10726/G06	7.0	-37.5	-107.6	94.8
10726/G07	-13.7	54.4	14.5	39.1
10726/G08	2.9	-2.7	13.2	42.4
10726/G09	3.6	3.3	-7.0	26.8
10726/G10	10.5	6.0	-7.7	11.8
10726/G11	9.1	1.3	-10.3	52.0
10727/A02	-1.3	3.2		40.7
10727/A03	6.3	-19.2	-4.5 12.3	80.9
10727/A04	-4.6	28.2		29.0
10727/A05	4.2	-3.0	5.7	32.7
10727/A06	-17.1	-6.3	13.7	61.1
10727/A07	-10.7	-3.7	12.3	9.7
10727/A08	-0.6	9.7	15.2	
10727/A09	-16.8	12.7	16.6	
10727/A10	-6.4	89.0	18.1	
10727/A11	7.4	6.2	10.8	
10727/B02	2.4	-18.4	-10.3	
10727/B02	-13.4	-2.8	-7.4	84.5
10/2//003				



	46.0	47.4	21.0	87.1
10727/B04	10.5	39.0	9.4	83.3
10727/B05	-3.9	40.7	6.4	91.0
10727/B06	8.4	46.5	0.6	83.5
10727/B07		47.4	14.4	90.7
10727/B08	4.0	31.7	18.1	81.9
10727/B09	6.7	94.0	29.7	99.2
10727/B10	3.9	6.9	15.9	69.8
10727/B11	16.8	-28.5	-12.5	73.8
10727/C02	-2.0	14.6	11.5	11.9
10727/C03 '	-3.2	27.6	23.2	81.7
10727/C04	0.2	11.8	7.9	8.9
10727/C05	13.7	5.6	12.3	45.2
10727/C06	5.2	8.4	13.0	36.7
10727/C07	15.9	3.6	23.2	47.8
10727/C08	4.9		21.7	37.9
10727/C09	-13.5	16.6	45.7	94.4
10727/C10	-35.3	85.3	22.4	14.5
10727/C11	-25.6	-15.6	5.7	51.6
10727/D02	3.2	. 22.6	-3.0	24.0
10727/D03	3.1	39.4	6.4	76.0
10727/D04	25.9	39.6	-0.1	39.9
10727/D05	8.5	3.4	10.8	24.4
10727/D06	13.1	8.6	-14.7	50.6
10727/D07	19.7	10.5	5.0	8.5
10727/D08	14.1	-0.5	7.2	17.9
10727/D09	8.2	15.1	9.4	79.9
10727/D10	11.4	86.2	17.4	17.3
10727/D11	10.5	-23.7	-6.7	28.0
10727/E02	9.3	22.4		28.8
10727/E03	11.1	35.5	5.7	98.4
10727/E04	46.1	82.1	-7.4	12.1
10727/E05	17.1	12.9	-7.4	-2.2
10727/E06	14.2	-9.3	9.4	45.2
10727/E07	20.1	7.1	10.1	27.0
10727/E08	14.2	25.6	23.9	28.4
10727/E09	9.3	15.1	15.9	96.6
10727/E10	9.7	85.1	5.0	-5.4
10727/E11	37.3	-33.4	7.9	52.0
10727/F02	15.9	-0.5	11.5	22.0
10727/F03	8.9	36.8	-3.7	
10727/F04	15.3	17.9	-10.3	6.0
10727/F05	21.8	-9.1	-3.7	37.7
10727/F06	14.5	4.9	8.6	
10727/F07	21.4	-8.9	2.1	17.9
10727/F08	12.5	-5.4	10.1	
10727/F09	-45.2	-2.0	21.7	
	15.9	74.1	9.4	93.4
10727/F10	17.3	-2.6	18.1	
10727/F11	7.1	37.5	-20.	
10727/G02	-3.5	19.4	-10.	
10727/G03	27.2	80.6	-27.	
10727/G04	8.0	11.2	-2.3	
10727/G05	2.9	-12.1	-12.	
10727/G06	7.2	5.4	-24.	1 29.6
10727/G07	1.2			



		-19.6	-7.4	21.8	
10727/G08	15.7	-19.6	10.8	18.8	
10727/G09	5.7		10.8	99.2	
10727/G10	-5.6	85.1 -3.5	15.9	-0.8	
10727/G11	6.9		-7.9	25.6	
10728/A02	-12.3	9.2	-7.9	29.2	
10728/A03	-7.3	-25.8	15.6	28.5	
10728/A04	3.5	28.0	4.5	31.8	
10728/A05	-10.8	17.7	-3.1	19.7	
10728/A06	-10.4	17.2	31.1	28.5	
10728/A07	-21.6	59.6	0.5	40.2	
10728/A08	-1.4	24.1	10.3	53.1	
10728/A09	-5.5	19.3	1.8	77.2	
10728/A10	-16.3	-3.4		58.8	
10728/A11	-2.3	-0.6	-9.3 -0.4	61.2	
10728/B02	-11.1	-10.5		74.4	
10728/B03	-1.3	-36.6	10.3	67.2	
10728/B04	-6.0	-2.0	9.8	60.4	l
10728/B05	-12.3	26.9	9.4	56.0	1
10728/B06	4.7	38.1	7.6	82.2	1
10728/B07	31.4	11.1	20.9	77.0	ł
10728/B08	14.8	34.7	-6.6		-
10728/B09	1.7	31.7	-0.4	81.7	4
10728/B10	3.9	16.8	2.7	79.3	-
10728/B11	-1.0	48.2	-12.4	80.3	4
10728/C02	-32.1	-35.4	42.3	15.5	4
10728/C03	10.5	9.7	24.9	16.9	4
10728/C03	-0.0	16.1	27.2	33.6	-
10728/C05	-21.7	16.1	23.2	33.7	4
10728/C06	8.4	4.2	2.7	22.9	4
10728/C07	-7.2	8.3	8.9	46.3	4
10728/C08	-2.2	17.5	9.4	25.5	-
10728/C09	14.5	-6.8	8.1	31.6	4
10728/C10	6.1	4.4	11.2	28.7	-
10728/C11	-10.1	21.8	8.5	45.2	4
10728/D02	-0.3	9.9	9.8	21.4	4
10728/D02	10.2	10.8	32.0	13.5	4
10728/D03	6.8	-1.1	26.7	23.1	4
10728/D04	4.9	12.7	7.2	29.5	4
10728/D05	10.4	5.8	5.8	23.2	-
	8.1	2.4	2.3	21.8	_
10728/D07	13.5	6.9	2.7	34.7	
10728/D08	10.5	-2.9	-3.9	27.6	_
10728/D09	17.9	18.6	-3.9	30.5	_
10728/D10	15.9	22.1	-10.2	52.5	
10728/D11	5.4	7.4	15.2	5.4	_
10728/E02	13.2	9.5	12.0	.11.9	
10728/E03	5.5	10.1	23.2	25.6	
10728/E04	17.4	7.4	5.8	53.4	
10728/E05		-4.7	12.0	26.4	
10728/E06	6.6	21.8	28.0	79.8	
10728/E07	9.6	5.1	29.4	46.3	
10728/E08	15.2	0.1	22.3		
10728/E09	9.0	-20.8	13.8		
10728/E10	24.7	-5.9	8.9	53.1	
10728/E11	16.3	-5.9			



		4.4	7.2	25.6
10728/F02	2.9	-0.2	-9.3	18.7
10728/F03	6.8	5.1	7.2	47.9
10728/F04	14.2	-5.9	-0.4	53.3
10728/F05	6.0	-1.5	1.8	28.2
10728/F06	14.4	-2.2	-0.8	62.6
10728/F07	2.4	-13.5	8.9 .	62.8
10728/F08	14.5	-13.0	1.4	23.4
10728/F09	5.9	-6.3	4.9	48.7
10728/F10	18.0	0.8	-12.4	72.5
10728/F11 '	16.7	-10.2	0.9	7.1
10728/G02	2.3	-2.0	-8.4	8.8
10728/G03	14.3	-8.2	0.5	20.9
10728/G04	21.8	7.2	-4.4	63.1
10728/G05	9.4	-14.1	-13.3	25.3
10728/G06	13.5	-12.3	-17.3	42.4
10728/G07	22.6	-5.7	-11.9	42.3
10728/G08	21.4	-8.0	6.3	22.2
10728/G09	6.8	-12.5	-0.8	27.9 .
10728/G10	10.4	16.1	-12.8	71.4
10728/G11	3.2	10.0	-25.7	28.1
10729/A02	15.5	27.0	1.9	27.5
10729/A03	4.7		-16.6	45.4
10729/A04	-4.0	58.8	-6.8	38.8
10729/A05	-17.7	23.4	-8.6	29.8
10729/A06	-10.9	36.5	-36.7	51.1
10729/A07	-10.0	49.0	-23.4	48.1
10729/A08	-13.3	37.8	11.0	80.3
10729/A09	0.4	25.7	-12.8	34.8
10729/A10	0.7	28.7	-12.8	49.9
10729/A11	4.9	15.5	-10.2	77.2
10729/B02	13.8	34.9	-9.4	57.3
10729/B03	· 11.2	38.2	-22.7	43.8
10729/B04	0.1	63.7	-25.7	51.0
10729/B05	-5.2	50.6	-19.2	61.1
10729/B06	2.0	56.9	-33.2	58.2
10729/B07	-13.4	69.0	-13.6	66.0
10729/B08	-14.7	53.2	-6.4	47.2
10729/B09	-16.0	51.6	-13.9	32.6
10729/B10	-0.7	68.3	4.2	36.6
10729/B11	7.8	18.8		18.2
10729/C02	6.0	16.9	9.1	13.5
10729/C03	11.0	25.7	4.2	20.7
10729/C04	-2.5	35.9	-5.6	15.5
10729/C05	5.8	21.8	3.1	15.2
10729/C06	3.8	38.2		58.4
10729/C07	-22.4	60.8	-1.8	
10729/C08	-20.3	25.4	-13.6	
10729/C09	-26.4	33.2	-34.8	15.8
10729/C10	2.5	45.7	3.5	
10729/C11	10.4	35.9	-17.4	
10729/D02	12.2	.5.7	15.6	
10729/D02	15.3	15.5	14.1	
10729/D03	-5.7	18.8	-12.	
10729/D04	2.2	22.1	2.3	20.1
107297003				



10729/D06         0.2         45.7         2.7         30.2           10729/D07         -15.3         21.4         -20.0         25.5           10729/D08         -26.2         10.3         -21.1         27.6           10729/D09         -9.6         22.1         -12.1         34.8           10729/D10         4.1         11.3         -11.3         36.1           10729/D11         -2.0         19.2         0.1         18.8           10729/E02         26.6         8.0         28.4         11.7           10729/E03         6.9         20.1         29.2         27.5           10729/E03         0.7         19.5         26.5         9.8
10729/007         -15.3         21.3         -21.1         27.6           10729/008         -26.2         10.3         -21.1         27.6           10729/009         -9.6         22.1         -12.1         34.8           10729/009         -9.6         22.1         -12.1         36.1           10729/010         4.1         11.3         -11.3         36.1           10729/011         -2.0         19.2         0.1         18.8           10729/E02         26.6         8.0         28.4         11.7           10729/E03         6.9         20.1         29.2         27.5           10729/E03         6.9         20.1         29.2         27.5
10729/008         -26.2         10.3         1.1         34.8         10729/009         -9.6         122.1         -12.1         34.8         10729/010         4.1         11.3         -11.3         36.1         10729/010         4.1         11.3         -11.3         36.1         10.1         18.8         10.1         18.8         10.1         18.8         11.7         10.2         10.2         10.2         10.2         11.7         10.2 <td< td=""></td<>
10729/D09         -9.6         22         36.1           10729/D10         4.1         11.3         -11.3         36.1           10729/D11         -2.0         19.2         0.1         18.8           10729/E01         -2.0         19.2         0.1         17.7           10729/E02         26.6         8.0         28.4         11.7           10729/E03         6.9         20.1         29.2         2.5           10729/E03         6.9         20.1         29.2         2.5           9.8         -9.8         -9.8         -9.8
10729/D10         4.1         11.3         0.1         18.8           10729/D11         -2.0         19.2         0.1         18.8           10729/E02         26.6         8.0         28.4         11.7           10729/E03         6.9         20.1         29.2         29.2           20.79/F03         6.9         20.1         29.2         29.8
10729/E01 -2.0 15.2 28.4 11.7 10729/E02 26.6 8.0 28.4 11.7 10729/E03 6.9 20.1 29.2 27.5 107729/E03 6.9 20.1 26.6 9.8
10729/E02 26.6 6.9 20.1 29.2 27.5 10729/E03 6.9 20.1 29.2 9.8
10729/F03 6.9 20.1 36.5 9.8
9.7
46.8
12.1 43.7
10700/507 4.1 20.7
10.720/508
6.9 29.0
10729/203 5.7 50.3 11.8 7.5
40720/511 70.9 25.7
18.9
10/29/702 30.0 10.6 33.7 27.8
16.0 13.3 25.4 44.9
15.4 4.8 31.5 33.6
10/29/-03
10/29/F00 5.8 6.7 6.1 37.3
10/29/F07 3.4 10.3 0.8 44.0
10/29/700 3.6 13.3 8.8 36.2
10/29/F09 30.0 58.5 15.2 39.0
10/29/F10 25.4 7.2 13.2
10/29/F11
10729/302
10729/G03 12.2 52.9 1.6 16.2
10729/304 8.7 4.4 . 9.9 22.0
10/29/303
10729/300 -0.8 14.4 38.2
10729/307
107297300 20.8 1.9 49.0
10729/305 60.1 -13.2 26.7
10729/310 0.5 23.4 3.8 15.4
10/29/611 27 27 5 -23.1 39.5
10/30/A02 3.2 34.4 -11.2 62.3
10/30/A03 37.2 -5.1 /0.0
107307404 10.8 18.6 2.8 42.7
107307A03
10730/A00 18.0 10.4 -23.9 53.4
10730/A07 -10.3 10.4 -6.0 69.0
10730/A08 -2.5 1.1 -4.7 69.5
10730/A09 1.3 56.1 1.0 68.7
10730/A10 0.3 56.4 -6.4 91.0
10730/A11 5.4 66.3
10730/B02 3.0 46.8 17.3 78.3
10730/B03 -0.3 36.5 7.2 73.2
10730/B04 12.5 8.5 -2.9 71.1
10730/B05 -0.3 25.0 7.6 71.3
10730/B06 2.4 63.1
10730/807 0.0 48.4 0.2 91.8
10730/B08 4.4 14.2 15.1 70.6
10730/B09 9.4 14.2 15.1

231 Table 14 (continued)

			100	69.5
10730/B10	15.2	15.8	19.0	81.7
10730/B11	1.9	70.2	-13.9	31.2
10730/C02	48.8	2.7	26.5	43.2
10730/C03	25.5	-12.1	36.5	43.2
10730/C04	46.1	0.1	15.5	46.1
10730/C05	11.4	-9.8	8.5	34.7
10730/C05	5.3	8.5	7.6	37.4
10730/C00	7.3	20.3	1.0	56.5
10730/C08	-2.3	24.3	8.5	42.9
10730/C08	14.0	28.2	18.1	40.3
10730/C09	15.4	20.5	44.4	66.6
10730/C10	-8.0	38.4	16.4	34.7
10730/D11	12.4	18.6	24.3	34.7
10730/D02	8.4	9.9	19.0	33.6
10730/D03	9.1	10.4	20.8	
	11.9	12.6	-1.6	38.1
10730/D05	5.8	35.3	-2.0	55.9
10730/D06	8.8	43.0	5.0	52.5
10730/D07	8.6	44.9	12.9	-13.6
10730/D08	9.8	45.1	-1.6	59.1
10730/D09	-15.3	16.7	-3.3	18.5
10730/D10	7.7	2.0	-0.7	9.7
10730/D11	24.8	17.7	16.4	18.8
10730/E02	34.5	65.3	14.6	53.3
10730/E03	22.1	13.5	18.6	35.2
10730/E04	8.7	15.8	28.7	49.0
10730/E05	11.1	1.5	26.0	52.8
10730/E06	12.0	18.8	30.0	37.1
10730/E07	25.1	6.2	48.4	40.3
10730/E08	21.8	21.7 ·	20.3	33.9
10730/E09	26.0	9.3	39.6	63.6
10730/E10	29.1	19.1	31.7	77.2
10730/E11	18.4	2.9	20.3	-6.2
10730/F02	11.7	10.4	1.5	-0.6
10730/F03	18.3	-4.8	28.7	36.0
10730/F04	19.6	-16.3	19.5	23.5
10730/F05	21.9	-0.6	3.2	56.5
10730/F06	67.5	27.3	-2.0	60.7
10730/F07		0.8	-0.3	46.4
10730/F08	2.1	17.9	13.3	71.1
10730/F09	14.4	6.2	1.9	42.1
10730/F10	13.4	-24.1	4.5	53.6
10730/F11	-1.3	20.8	18.1	41.1
10730/G02	23.3	-6.9	44.0	43.2
10730/G03	15.2	-6.7	21.6	47.7
10730/G04	7.4	-18.2	65.0	35.8
10730/G05	22.3	-10.2	0.2	17.7
10730/G06	8.2	6.4	19.9	26.2
10730/G07	8.3	9.5	20.3	
10730/G08	23.3	-20.3	23.0	
10730/G09	18.7	3.1	22.1	
10730/G10	11.3	26.2	-0.3	
10730/G11	-1.4	14.8	-3.9	
10731/A02	2.7	10.8	7.5	
10731/A03	2.5	10.8		

232 Table 14 (continued)

10731/A04	5.0	20.2	5.1	43.6
10731/A05	-6.5	34.3	14.1	85.8
10731/A06	-5.5	30.1	1.3	53.0
10731/A07	-4.3	39.4	4.6	49.5
10731/A08	-13.8	25.7	-2.5	59.9
10731/A09	-2.7	21.9	-14.4	46.7
10731/A10	-5.3	26.3	-3.5	41.2
10731/A11	3.1	16.1	-0.1	53.4
10731/B02	6.5	15.5	13.2	71.6
10731/B03	1.9	12.3	9.9	60.9
10731/B04	12.0	31.3	0.3	71.0
10731/B05	3.8	35.9	17.9	86.0
10731/B06	6.2	37.5	5.6	56.2
10731/B07	11.7	29.1	6.0	41.6
10731/B08	6.2	37.2	-23.4	57.4
10731/B09	-0.5	15.0	0.3	29.6
10731/B10	1.3	50.5	4.6	72.9
10731/B11	6.9	55.2	-13.0	58.2
10731/C02	3.1	6.9	-2.5	11.1
10731/C03	4.5	9.1	11.3	38.7
10731/C03	10.5	31.0	15.1	32.5
10731/C05	14.9	35.5	22.7	78.3
10731/C05	13.8	23.1	7.0	18.2
10731/C07	70.4	35.5	31.3	-11.6
10731/C08	10.2	23.6	<b>-3</b> .0	25.8
10731/C09	15.1	16.8	-6.3	22.7
10731/C10	19.7	20.9	6.5	23.3
10731/C10	5.5	29.6	-9.2	16.2
10731/D02	-8.4	4.9	17.9	8.7
10731/D02	17.3	16.3	28.4	40.2
10731/D03	9.3	15.8	6.5	24.5
10731/D05	32.7	53.9	46.0	92.7
10731/D06	16.1	23.2	8.0	59.7
10731/D07	12.3	25.9	2.7	45.9
10731/D08	25.8	16.8	-8.7	44.2
10731/D09	6.1	12.6	-2.0	23.9
10731/D10	13.0	15.8	9.9	21.1
10731/D11	15.2	43.6	8.4	56.6
10731/E02	11.2	7.9	13.7	49.1
10731/E03	-1.4	10.4	15.6	20.7
10731/E04	23.8	13.6	30.8	55.6
10731/E04	7.0	17.7	27.0	82.2
10731/E05	2.6	10.4	-12.0	37.7
10731/E06	12.6	38.4	3.7	45.9
10731/E07	10.5	40.1	8.9	59.0
10731/E08	52.5	17.2	23.2	27.0
	33.1	25.1	21.7	35.5
10731/E10	17.9	26.4	27.9	60.7
10731/E11 10731/F02	11.1	17.7	14.1	47.5
	7.9	8.4	11.8	40.6
10731/F03	24.5	5.0	3.2	17.0
10731/F04	17.6	19.5	20.3	84.4
10731/F05	2.2	7.2	-23.4	20.9
10731/F06	13.3	37.7	1.3	34.7
10731/F07	10.0			

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Table 14 (continued)

		7.1	4.1	23.5
10731/F08	9.2	7.1	15.6	20.5
10731/F09	2.3	-0.7 7.9	28.4	48.1
10731/F10	11.0	42.3	20.3	60.1
10731/F11	19.7	42.3	-10.1	15.2
10731/G02	16.8	7.7	6.5	33.7
10731/G03	12.9		0.3	23.3
10731/G04	. 14.5	7.1	8.0	72.4
10731/G05	17.5	18.5	-0.6	33.3
10731/G06	10.8	2.3	40.8	10.9
10731/G07 '	31.6	0.7	-13.9	19.5
10731/G08	18.2	13.3	-8.7	4.4
10731/G09	13.3	8.9	5.6	10.3
10731/G10	<b>-9</b> .0	5.5	16.0	64.3
10731/G11	1.5	67.2		53.7
10732/A02	-12.5	5.1	10.8	37.4
10732/A03	-9.9	0.8	-3.8 -9.4	34.8
10732/A04	-14.1	-10.6		20.5
10732/A05	-3.9	4.6	-12.9	5.7
10732/A06	-0.0	-1.4	12.3	
10732/A07	-19.8	-0.3	0.7	26.1
10732/A08	-10.0	12.1	31.0	32.7
10732/A09	-11.2	39.7	8.8	60.3
10732/A10	10.2	6.1	7.3	20.3
10732/A11	-0.6	1.8	40.1	65.3
10732/B02	2.9	-26.0	23.5	78.0
10732/B03	8.2	-15.3	17.4	58.1
10732/B04	-1.3	-22.1	16.9	79.5
10732/B05	2.8	17.0	21.9	71.2
10732/B06	8.1	12.8	-12.4	74.3
10732/B07	1.6	15.8	21.4	75.1
10732/B08	8.0	7.8	16.9	64.4
10732/B09	14.0	2.0	18.4	69.2
10732/B10	12.1	0.6	0.7	51.5
10732/B11	9.0	9.3	70.9	73.7
10732/C02	11.9	-6.5	7.3	40.1
10732/C03	14.7	1.4	7.3	14.0
10732/C04	12.8	-14.7	3.8	30.6
10732/C05	11.2	-22.8	-17.0	18.5
10732/C06	11.8	-43.2	5.3	21.6
10732/C07	15.4	-28.6	4.3	26.5
10732/C08	7.6	1.6	17.9	54.5
10732/C09	8.0	-3.9	15.4	37.9
10732/C10	15.1	1.2	5.8	43.0
10732/C11	18.2	-5.0	16.4	31.9
10732/D02	9.2	8.7	-24.0	50.2
10732/D02	22.5	-18.7	26.0	24.9
10732/D03	24.6	-11.4	50.7	40.7
10732/D04	15.7	-36.7	4.3	30.2
10732/D05	16.3	3.6	16.4	24.3
	14.7	-19.1	-3.8	43.2
10732/D07	33.3	-20.6	30.5	49.4
10732/D08 10732/D09	15.2	-9.9	15.9	40.3
	25.5	-16.6	24.5	33.1
10732/D10 10732/D11	18.8	-13.4	18.9	48.6
[10/32/011	10.0			

234 Table 14 (continued)

10732/E02	13.1	0.8	4.8	33.3
10732/E03	16.7	-1.6	48.7	3.9
10732/E04	15.8	-10.6	29.5	8.2
10732/E05	18.7	-17.0	41.1	2.2
10732/E05	2.8	-11.0	16.9	-2.1
10732/E07	21.3	-8.5	42.2	15.2
10732/E07	13.6	-21.7	32.6	29.4
10732/E08	15.3	-7.2	46.7	18.1
	16.7	-3.3	35.6	1.6
10732/E10	16.2	-32.2	47.7	41.4
10732/E11 '	7.0	23.1	-9.4	55.6
10732/F02 10732/F03	31.9	54.1	51.8	68.6
	16.2	· -0.1	23.5	57.2
10732/F04 10732/F05	37.3	-30.7	12.8	58.9
	11.6	-8.0	0.2	45.7
10732/F06	31.0	-12.5	38.6	65.5
10732/F07	12.6	-11.9*	14.9	76.6
10732/F08	25.6	-13.4	25.5	79.7
10732/F09	14.1	0.8	15.9	65.1 ·
10732/F10	21.9	-21.5	77.5	75.2
10732/F11	8.1	-0.7	10.3	39.5
10732/G02	0.8	-20.0	36.1	38.1
10732/G03		8.0	25.0	24.9
10732/G04	12.6	3.8	15.4	15.2
10732/G05	17.2	-12.1	0.2	16.2
10732/G06	26.5	-21.9	21.4	23.9
10732/G07	4.6	-21.9	37.6	44.7
10732/G08	10.0	-34.8	9.8	33.9
10732/G09	16.9	-34.8	20.4	45.7
10732/G10	14.0	-33.7	38.6	63.0
10732/G11	10.9		11.5	74.6
10733/A02	-5.2	25.9	23.2	24.9
10733/A03	45.0	33.6	-14.1	24.0
10733/A04	-11.2	32.8	-4.0	18.2
10733/A05	-23.3	55.2	-24.3	33.7
10733/A06	-16.6	45.1	-12.9	27.2
10733/A07	-27.4	28.5		27.2
10733/A08	-17.1	19.5	-10.1	22.1
10733/A09	-11.9	25.9	-7.6	21.1
10733/A10	-9.3	14.2	-13.3	43.5
10733/A11	15.0	23.0	4.2	74.6
10733/B02	-7.4	31.6	14.7	62.2
10733/B03	3.1	14.4	35.8	56.3
10733/B04	-3.3	28.5	24.9	
10733/B05	-1.1	26.7	27.3	61.3
10733/B06	4.6	43.6	-9.2	71.4
10733/B07	1.2	32.7	4.2	73.5
10733/B08	-16.0	32.5	-15.7	65.5
10733/B09	-2.6	21.1	7.0	64.5
10733/B10	5.7	11.8	-59.6	65.1
10733/B11	22.5	12.5	23.7	36.6
10733/C02	5.8	31.6	15.1	71.8
10733/C02	17.0	14.4	28.1	29.3
10733/C03	8.4	29.0	19.2	18.4
10733/C04 10733/C05	11.5	17.2	11.1	23.2
10/33/005				



		- 00 7	20.0	4.1
10733/C06	4.7	22.7	4.6	10.2
10733/C07	1.2	16.7	-3.6	85.7
10733/C08	-28.5	65.8	91.9	16.3
10733/C09	-18.0	46.0		20.5
10733/C10	-7.6	36.0	-6.4 62.2	35.1
10733/C11	42.8	15.8		63.4
10733/D02	3.1	12.5	17.6	32.8
10733/D03	33.2	11.2	40.7	37.7
10733/D04	15.5	19.9	26.5	25.1
10733/D05 ,	16.5	10.6	16.8	-19.4
10733/D06	17.9	30.8	1.3	-6.8
10733/D07	-1.4	37.4	0.9	80.0
10733/D08	-8.3	38.3	42.3	38.7
10733/D09	9.8	48.3	33.8	22.8
10733/D10	2.9	46.8	-10.1	31.6
10733/D11	1.0	33.7	-4.0	
10733/E02	0.8	-1.3	20.8	60.5
10733/E03	42.6	10.7	43.1	26.8
10733/E04	2.1	45.4	-13.7	17.5
10733/E05	10.6	58.3	-33.2	2.9
10733/E06	13.5	37.3	22.4	10.4
10733/E07	13.2	19.9	29.3	-10.1
10733/E08	-5.1	54.2	75.2	81.1
10733/E09	13.4	72.4	35.8	62.6
10733/E10	5.5	31.3	10.3	52.8
10733/E11	5.5	31.6	15.9	71.8
10733/F02	-15.7	11.3	. 3.8	71.6
10733/F03	17.5	-3.6	24.5	24.2
10733/F04	21.4	76.3	-28.7	65.1
10733/F05	26.2	84.6 .	-25.1	65.1
10733/F06	19.3	17.8	-4.8	20.9
10733/F07	16.4	19.2	1.7	-16.4
10733/F08	-13.2	17.2	-32.4	66.6
10733/F09	-2.1	30.1	-0.3	52.8
10733/F10	8.5	21.9	-5.6	24.4
10733/F11	4.1	0.6	-17.8	44.4
10733/G02	8.3	-6.2	-7.6	64.5
10733/G02	24.7	0.7	12.7	30.5
10733/G04	11.5	10.6	11.9	20.3
10733/G04 10733/G05	. 19.2	1.5	-1.1	1.8
10733/G05	37.0	5.2	0.1	0.8
10733/G06	19.5	18.1	-6.8	8.5
	2.5	44.2	68.7	79.0
10733/G08	77.8	38.7	-17.0	41.4
10733/G09	12.7	18.2	-58.0	41.9
10733/G10	3.3	-1.0	-4.4	32.6
10733/G11	4.1	0.0	-3.8	51.1
10734/A02	10.1	18.5	22.3	87.8
10734/A03	0.6	11.4	11.7	68.0
10734/A04	9.1	22.6	2.9	69.9
10734/A05	-6.4	-6.4	-9.9	46.9
10734/A06	-9.4	15.2	21.9	89.3
10734/A07	0.1	6.8	9.1	71.5
10734/A08	-7.9	27.3	-9.5	88.4
10734/A09	-7.9			



	4.4	27.8	26.3	55.4
10734/A10	6.3	12.5	5.5	51.9
10734/A11	8.5	-8.9	-2.9	61.9
10734/B02	21.7	45.1	13.0	90.1
10734/B03		38.7	14.4	88.4
10734/B04	2.8	17.8	56.3	67.8
10734/B05	-2.3	54.0	0.2	91.2
10734/B06	-0.9	65.5	18.8	93.2
10734/B07	9.1	19.3	-2.4	56.1
10734/B08	-0.5	34.9	12.6	94.3
10734/B09 '	-32.3	60.7	7.7	82.6
10734/B10	15.7		-5.5	83.6
10734/B11	12.6	50.9	36.0	78.6
10734/C02	-3.9	-6.7	24.5	88.2.
10734/C03	<b>-</b> 5.6	48.6	24.5	90.7
10734/C04	-37.6	38.1		52.7
10734/C05	-10.3	9.3	3.8	48.3
10734/C06	-1.7	18.4	-0.2	96.8
10734/C07	-2.7	41.0	32.0	93.2
10734/C08	-34.2	35.1	5.5	
10734/C09	-13.3	36.2	11.3	88.6
10734/C10	10.1	24.4	17.4	11.6
10734/C11	6.3	18.0	9.1	23.9
10734/D02	-11.5	5.2	6.4	46.0
10734/D03	17.4	19.6	24.1	78.6
10734/D03	6.1	-10.7	13.5	46.9
10734/D04	2.4	-9.6	8:2	55.0
10734/D03	0.0	1.3	-9.1	30.6
10734/D07	14.7	51.1	28.1	92.0
10734/D07	2.5	-13.7	2.0	49.8
10734/D08	-11.6	21.0 -	42.2	88.0
10734/D09	11.1	-4.4	9.9	20.6
10734/D10	9.8	14.6	17.0	33.9
	7.9	-10.8	50.1	66.9
10734/E02	. 26.9	55.0	27.2	99.3
10734/E03	10.7	-7.8	26.7	88.9
10734/E04	10.7	7.9	17.9	63.6
10734/E05	28.4	6.3	13.5	50.6
10734/E06	27.9	82.4	8.2	100.8
10734/E07		24.2	13.0	89.1
10734/E08	26.6	73.0	1.1	96.2
10734/E09	8.0	-5.0	29.8	27.9
10734/E10	18.5	-8.0	16.1	67.1
10734/E11	19.2	0.7	10.4	55.0
10734/F02	6.2	24.8	-24.1	86.8
10734/F03	4.2	3.9	25.0	76.5
10734/F04	-2.6		-1.1	73.8
10734/F05	9.8	-15.6	-21.4	64.2
10734/F06	11.0	-17.1	-5.1	95.7
10734/F07	6.6	33.7	-6.0	66.3
10734/F08	4.8	-23.6		93.9
10734/F09	-3.7	3.1	-17.4	44.8
10734/F10	14.8	-8.3	25.8	47.3
10734/F11	13.3	-15.6	16.1	63.6
10734/G02	1.5	3.4	14.8	93.4
10734/G03	18.7	82.8	-3.8	93.4
1070-77000				

237 Table 14 (continued)

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C	-1.1	62.9	16.1	72.1
10734/G04	7.4	-0.3	2.9	57.7
10734/G05 10734/G06	16.5	12.5	-18.8	43.1
10734/G07	21.9	51.1	-25.0	96.6
10734/G08	11.6	33.7	0.2	82.2
10734/G09	8.5	21.4	-7.7	84.7
10734/G10	10.8	3.8	9.9	19.3
10734/G11	8.7	4.1	-25.4	20.2